

Job Type: Internship

Location: InfoTech, Network Division | Mountain View, CA

Area(s) of Opportunity:

Internship, 3D Vehicle Simulation

Internship, Advanced Deep learning

Internship, Connected Vehicle Testbed Development

Internship, Contract Based Architecture Analytics

Internship, Cooperative Automated Driving Image Analytics

Internship, Cooperative Automated Driving Sensor Analytics

Internship, Cooperative Maneuvering

Internship, Cooperative Perception II

Internship, Deep Learning for Anomaly Detection

Internship, Digital Twin Analytics

Internship, Digital Twin Driver Perception

Internship, Distributed Machine Learning

Internship, Edge Computing Prototype

Internship, Cooperative Perception

Internship, Joint Radar Communications

Internship, mmWave V2X Communications

Internship, Overlay Knowledge Network

Internship, System Architecture & V&V

Internship, Systems Architecture & Requirement Restraints

Internship, Traffic Management

Internship, Value Anticipating Networks

Internship, Vehicular Virtual Edge Platform Development

Internship, Sensor Fusion

Internship, V2X Congestion Control

Internship, NR-V2X Communications



Summer 2019 Internship - 3D Vehicle Simulation
Research & Development - InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking MS students in Computer Science in the area of vehicular communications technologies.

Objective:

Work on development of software components for vehicle behavior simulation using Unity 3D.

Required Qualifications:

- Experience with Unity 3D programming
- Strong C++
- Multi-threading, and object-oriented design skills
- Currently pursuing Master's in Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
- Good planning, time management, decision-making and organizational skills, and ability to manage several tasks at once
- Well-developed interpersonal and communication skills, including ability to respond professionally in all types of situations, maintain confidentiality and exercise tact and good judgment in an international work environment
- Must demonstrate a genuine interest in and willingness to work in the automotive / mobility industry post-graduation

- Must be 18 years of age or older
- GPA of 3.0 or higher



- Must be currently enrolled in a full-time, accredited graduate degree program studying in one of the following disciplines or related fields:
 - o Computer Science
- Sponsorship for employment-based visas or other work authorization may be available for this intern position
- Must be open to relocation (Mountain View, CA) and have reliable transportation

- Competitive wages
- · Paid holidays
- · Housing assistance for those that qualify
- · Relocation assistance for those that qualify

HOW TO APPLY

- 1. Log-on to: http://bit.ly/ITC Internship
- 2. Complete your online candidate profile, and attach a resume
- 3. Click Submit
- 4. A Toyota Recruiter will be in contact regarding next steps



Summer 2019 Internship – Advanced Deep Learning
Research & Development – InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Computer Science in the area of vehicular communications technologies.

Objective:

Perform research on Deep Learning especially GAN. Develop Proof-of-Concept prototypes.

Required Qualifications:

- Research experience on Deep Learning especially GAN
- Strong Python
- Deep Learning library i.e. PyTorch
- TensorFlow
- Currently pursuing PhD in Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
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Summer 2019 Internship – Connected Vehicle Testbed Development Research & Development – InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking MS students in Computer Science in the area of vehicular communications technologies.

Objective:

Work on development of software components of connected vehicle testbed.

Required Qualifications:

- Experience with ROS
- Strong Python, C++ and object-oriented design skills
- Currently pursuing Master's in Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
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Summer 2019 Internship – Contract Based Architecture Analytics
Research & Development – InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering, Mechanical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Research on the design methodology of distributed systems for connected vehicles using formal methods.

Required Qualifications:

- Experience with formal modeling languages (e.g., temporal logic)
- Formal method tools (e.g., model checker, SMT solvers), or code generation in distributed environment
- Currently pursuing PhD in Electrical Engineering, Mechanical Engineering or Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
- Good planning, time management, decision-making and organizational skills, and ability to manage several tasks at once
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Administrative Detail:

Must be 18 years of age or older



- GPA of 3.0 or higher
- Must be currently enrolled in a full-time, accredited graduate degree program studying in one of the following disciplines or related fields:
 - o Computer Science, Electrical Engineering, Mechanical Engineering
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Summer 2019 Internship - Cooperative Automated Driving Image Analytics Research & Development - InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering, Mechanical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Perform research on CoAD computer graphics and perception.

Required Qualifications:

- Experience with data analytics, communication, cooperative theory
- Currently pursuing PhD in Electrical Engineering, Mechanical Engineering or Computer
 Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
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- Must be 18 years of age or older
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- Must be currently enrolled in a full-time, accredited graduate degree program studying in one of the following disciplines or related fields:



o Computer Science, Electrical Engineering, Mechanical Engineering

- Sponsorship for employment-based visas or other work authorization may be available for this intern position
- Must be open to relocation (Mountain View, CA) and have reliable transportation

Standard Benefits:

- Competitive wages
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Summer 2019 Internship – Cooperative Automated Driving Sensor Analytics Research & Development – InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering, Mechanical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Survey various sensors (V2X, LiDAR, Radar, Cameras) suitable for automated driving. Perform research on cooperative automated driving, sensor fusion, V2X communication, and cooperative perception. Evaluate and analyze performance of proposed schemes through numerical simulation.

Required Qualifications:

- Experience with Machine Learning, V2X Communication
- Excellent coding skills with Python and/or MATLAB
- Familiar with Data Fusion and Kalman Filters
- Post Doc or currently pursuing PhD in Electrical Engineering or Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
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Standard Benefits:

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HOW TO APPLY

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- 2. Complete your online candidate profile, and attach a resume
- 3. Click Submit
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Summer 2019 Internship - Cooperative Maneuvering
Research & Development - InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking MS students in Electrical Engineering or Mechanical Engineering in the area of vehicular communications technologies.

Objective:

Develop cooperative maneuvering algorithms and evaluate communications aspects thereof.

Required Qualifications:

- Strong MATLAB and Julia skills
- Familiarity with V2X protocols
- Currently pursuing Master's in Electrical Engineering or Mechanical Engineering in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
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- Must be 18 years of age or older
- GPA of 3.0 or higher



- Must be currently enrolled in a full-time, accredited graduate degree program studying in one of the following disciplines or related fields:
 - o Mechanical Engineering, Electrical Engineering
- Sponsorship for employment-based visas or other work authorization may be available for this intern position
- Must be open to relocation (Mountain View, CA) and have reliable transportation

- Competitive wages
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Summer 2019 Internship – Cooperative Perception II
Research & Development – InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Computer Science in the area of vehicular communications technologies.

Objective:

Perform cooperative perception research for connected vehicles.

Required Qualifications:

- Research experience on Graph Theory and Machine Learning
- Strong Python, C++
- MATLAB coding skills
- Currently pursuing PhD in Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
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 - o Computer Science
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HOW TO APPLY

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Summer 2019 Internship - Cooperative Perception Research & Development - InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Implement value-assessment algorithms for cooperative perception among multiple vehicles on a proof-of-concept platform.

Required Qualifications:

- Knowledge of V2X protocols, strong programming skills
- Currently pursuing PhD in Electrical Engineering or Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
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 - o Computer Science, Electrical Engineering
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Summer 2019 Internship - Deep Learning for Anomaly Detection Research & Development - InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Computer Science in the area of vehicular communications technologies.

Objective:

Perform anomaly detection from vehicle data, map data, and geospatial data. Develop Proof-of-Concept prototypes.

Required Qualifications:

- Machine/Deep Learning and/or Data Science experience with processing large-scale information
- Familiarity with usage of data science and engineering tools (i.e. TensorFlow, PyTorch)
- Currently pursuing PhD in Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
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Summer 2019 Internship - Digital Twin Analytics
Research & Development - InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering, Mechanical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Perform research on Digital Twin predictive analytics for connected vehicles. Analyze vehicle driving data set and predict vehicle driver behaviors to improve safety guidance.

Required Qualifications:

- Experience with Machine Learning, Deep Learning, Numerical Methods
- Currently pursuing PhD in Electrical Engineering, Mechanical Engineering or Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
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Summer 2019 Internship - Digital Twin Driver Perception
Research & Development - InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering, Mechanical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Perform research on Digital Twin driver guidance and perception for connected vehicles. Develop a proof-of-concept of Cyber-physical ID of surrounding vehicles and provide guidance for drivers.

Required Qualifications:

- Experience with Unity3D, Computer Vision, Human Machine Interface
- Currently pursuing PhD in Electrical Engineering, Mechanical Engineering or Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
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Summer 2019 Internship – Distributed Machine Learning
Research & Development – InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Computer Science in the area of vehicular communications technologies.

Objective:

Perform Deep Learning research for connected vehicles. Develop Proof-of-Concept prototypes.

Required Qualifications:

- Machine and Deep Learning research experience with strong data processing programming language skills (i.e. R, Python)
- Familiarity with industrial/academical de-facto used learning libraries
- Currently pursuing PhD in Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
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Administrative Detail:

Must be 18 years of age or older



- GPA of 3.0 or higher
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Summer 2019 Internship – Edge Computing Prototype Research & Development – InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering, Mechanical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Research on resource management, computation model and optimization/analysis method for edge computing framework.

Required Qualifications:

- Experience with optimization techniques, timing analysis for real-time and/or distributed systems
- Currently pursuing PhD in Electrical Engineering, Mechanical Engineering or Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
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- Must be currently enrolled in a full-time, accredited graduate degree program studying in one
 of the following disciplines or related fields:
 - o Computer Science, Electrical Engineering, Mechanical Engineering
- Sponsorship for employment-based visas or other work authorization may be available for this intern position
- Must be open to relocation (Mountain View, CA) and have reliable transportation

- Competitive wages
- · Paid holidays
- · Housing assistance for those that qualify
- Relocation assistance for those that qualify

HOW TO APPLY

- 1. Log-on to: http://bit.ly/ITC Internship
- 2. Complete your online candidate profile, and attach a resume
- 3. Click Submit
- 4. A Toyota Recruiter will be in contact regarding next steps



Summer 2019 Internship – Joint Radar Communications
Research & Development – InfoTech Network Division | Mountain View, CA

Collaborative. Respectful. A place to dream and do. These are just a few words that describe what life is like at Toyota. As one of the world's most admired brands, Toyota is growing and leading the future of mobility through innovative, high-quality solutions designed to enhance lives and delight those we serve. We're looking for diverse, talented students who want to grow and challenge what's possible with us.

Job Summary:

Toyota is seeking PhD students in Electrical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Develop radar algorithms on software defined radio-based platform.

Required Qualifications:

- Experience with MATLAB, Python, GNU Radio and Ettus SDR platform
- Currently pursuing PhD in Electrical Engineering or Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
- Good planning, time management, decision-making and organizational skills, and ability to manage several tasks at once
- Well-developed interpersonal and communication skills, including ability to respond professionally in all types of situations, maintain confidentiality and exercise tact and good judgment in an international work environment
- Must demonstrate a genuine interest in and willingness to work in the automotive / mobility industry post-graduation

- Must be 18 years of age or older
- · GPA of 3.0 or higher
- Must be currently enrolled in a full-time, accredited graduate degree program studying in one of the following disciplines or related fields:



Computer Science, Electrical Engineering

- Sponsorship for employment-based visas or other work authorization may be available for this intern position
- Must be open to relocation (Mountain View, CA) and have reliable transportation

Standard Benefits:

- Competitive wages
- Paid holidays
- Housing assistance for those that qualify
- Relocation assistance for those that qualify

HOW TO APPLY

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Summer 2019 Internship – mmWave V2X Communications
Research & Development – InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Develop DSRC-assisted mmWave communication protocol.

Required Qualifications:

- Familiar with DSRC/802.11p
- Strong knowledge on mmWave communication technology including beam alignment, channel model and medium access mechanism
- Solid understanding on wireless resource allocation and management
- Currently pursuing PhD in Electrical Engineering or Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
- Good planning, time management, decision-making and organizational skills, and ability to manage several tasks at once
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- Must demonstrate a genuine interest in and willingness to work in the automotive / mobility industry post-graduation

Administrative Detail:

Must be 18 years of age or older



- GPA of 3.0 or higher
- Must be currently enrolled in a full-time, accredited graduate degree program studying in one of the following disciplines or related fields:
 - Computer Science, Electrical Engineering
- Sponsorship for employment-based visas or other work authorization may be available for this intern position
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- Paid holidays
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- · Relocation assistance for those that qualify

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Internship, Overlay Knowledge Network Network Division | Mountain View, CA | Internship

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Implement overlay knowledge centric network protocols on actual vehicular communication devices.

Required Qualifications:

- Knowledge of V2X
- Familiarity with higher layer protocols and OpenC2X platform
- Currently pursuing PhD in Electrical Engineering or Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
- Good planning, time management, decision-making and organizational skills, and ability to manage several tasks at once
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- Must be 18 years of age or older
- GPA of 3.0 or higher
- Must be currently enrolled in a full-time, accredited graduate degree program studying in one of the following disciplines or related fields:



Computer Science, Electrical Engineering

- Sponsorship for employment-based visas or other work authorization may be available for this intern position
- Must be open to relocation (Mountain View, CA) and have reliable transportation

Standard Benefits:

- Competitive wages
- Paid holidays
- Housing assistance for those that qualify
- Relocation assistance for those that qualify

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Summer 2019 Internship – System Architecture & V&V
Research & Development – InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering, Mechanical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Perform research on Platform requirements and Systems V&V.

Required Qualifications:

- Experience with requirement generation, distributed systems, formal verification methods, model based systems engineering
- Currently pursuing PhD in Electrical Engineering, Mechanical Engineering or Computer
 Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
- Good planning, time management, decision-making and organizational skills, and ability to manage several tasks at once
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- Must be 18 years of age or older
- GPA of 3.0 or higher



- Must be currently enrolled in a full-time, accredited graduate degree program studying in one of the following disciplines or related fields:
 - o Computer Science, Electrical Engineering, Mechanical Engineering
- Sponsorship for employment-based visas or other work authorization may be available for this intern position
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HOW TO APPLY

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Summer 2019 Internship – Systems Architecture & Requirement Constraints Research & Development – InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering, Mechanical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Perform research on Distributed Systems Constraint Development.

Required Qualifications:

- Experience with requirement generation, distributed systems, formal verification methods, model based systems engineering
- Currently pursuing PhD in Electrical Engineering, Mechanical Engineering or Computer
 Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
- Good planning, time management, decision-making and organizational skills, and ability to manage several tasks at once
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Administrative Detail:

- Must be 18 years of age or older
- GPA of 3.0 or higher



- Must be currently enrolled in a full-time, accredited graduate degree program studying in one of the following disciplines or related fields:
 - o Computer Science, Electrical Engineering, Mechanical Engineering
- Sponsorship for employment-based visas or other work authorization may be available for this intern position
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HOW TO APPLY

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Summer 2019 Internship - Traffic Management
Research & Development - InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering, Civil Engineering, Mechanical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Design and evaluate intelligent path planning algorithm with connected vehicles to improve the performance of very-large scale road networks.

Required Qualifications:

- Experience with traffic simulators (AIMSUN or VISSIM)
- Strong C++ or Python programming skills
- Knowledge in transportation
- Currently pursuing PhD in Electrical Engineering, Civil Engineering, Mechanical Engineering or Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
- Good planning, time management, decision-making and organizational skills, and ability to manage several tasks at once
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- Must demonstrate a genuine interest in and willingness to work in the automotive / mobility industry post-graduation

Administrative Detail:

Must be 18 years of age or older



- GPA of 3.0 or higher
- Must be currently enrolled in a full-time, accredited graduate degree program studying in one of the following disciplines or related fields:
 - Computer Science, Electrical Engineering, Mechanical Engineering, Civil Engineering
- Sponsorship for employment-based visas or other work authorization may be available for this intern position
- Must be open to relocation (Mountain View, CA) and have reliable transportation

- Competitive wages
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HOW TO APPLY

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Summer 2019 Internship - Value Anticipating Networks
Research & Development - InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Develop new techniques to estimate value of various information for neighbors. Develop improved data scheduling to optimize aggregate value of information transferred to neighbors.

Required Qualifications:

- Strong MATLAB skills
- Strong knowledge of V2X protocol
- Currently pursuing PhD in Electrical Engineering or Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
- Good planning, time management, decision-making and organizational skills, and ability to manage several tasks at once
- Well-developed interpersonal and communication skills, including ability to respond professionally in all types of situations, maintain confidentiality and exercise tact and good judgment in an international work environment
- Must demonstrate a genuine interest in and willingness to work in the automotive / mobility industry post-graduation

Administrative Detail:

• Must be 18 years of age or older



- GPA of 3.0 or higher
- Must be currently enrolled in a full-time, accredited graduate degree program studying in one of the following disciplines or related fields:
 - Computer Science, Electrical Engineering
- Sponsorship for employment-based visas or other work authorization may be available for this intern position
- Must be open to relocation (Mountain View, CA) and have reliable transportation

- Competitive wages
- Paid holidays
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HOW TO APPLY

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Summer 2019 Internship – Vehicular Virtual Edge Platform Development Research & Development – InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking MS students in Computer Science in the area of vehicular communications technologies.

Objective:

Work on lab-scale and vehicle-based proof of concept development of a multi-node vehicular virtual edge platform (i.e., a vehicular micro cloud).

Required Qualifications:

- Strong Python, C++ and object-oriented design skills
- Familiarity with socket programming and multi-threading
- Currently pursuing Master's in Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
- Good planning, time management, decision-making and organizational skills, and ability to manage several tasks at once
- Well-developed interpersonal and communication skills, including ability to respond professionally in all types of situations, maintain confidentiality and exercise tact and good judgment in an international work environment
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Administrative Detail:

- Must be 18 years of age or older
- GPA of 3.0 or higher



- Must be currently enrolled in a full-time, accredited graduate degree program studying in one of the following disciplines or related fields:
 - o Computer Science
- Sponsorship for employment-based visas or other work authorization may be available for this intern position
- Must be open to relocation (Mountain View, CA) and have reliable transportation

- Competitive wages
- · Paid holidays
- · Housing assistance for those that qualify
- · Relocation assistance for those that qualify

HOW TO APPLY

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- 2. Complete your online candidate profile, and attach a resume
- 3. Click Submit
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Summer 2019 Internship – Sensor Fusion
Research & Development – InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Implement ETSI CPS message generation rule atop DSRC protocol stack that uses LIMERIC as congestion control gate in NS3. Propose or identify and implement sensor fusion algorithm for CPS messages.

Required Qualifications:

- Strong knowledge of wireless communication such as channel access mechanism, radio propagation, modulation and channel coding
- Solid understanding of IEEE 802.11p/DSRC
- Excellent coding skills with C++ and MATLAB
- Currently pursuing PhD in Electrical Engineering or Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
- Good planning, time management, decision-making and organizational skills, and ability to manage several tasks at once
- Well-developed interpersonal and communication skills, including ability to respond professionally in all types of situations, maintain confidentiality and exercise tact and good judgment in an international work environment
- Must demonstrate a genuine interest in and willingness to work in the automotive / mobility industry post-graduation



Administrative Detail:

- Must be 18 years of age or older
- GPA of 3.0 or higher
- Must be currently enrolled in a full-time, accredited graduate degree program studying in one of the following disciplines or related fields:
 - o Computer Science, Electrical Engineering
- Sponsorship for employment-based visas or other work authorization may be available for this intern position
- Must be open to relocation (Mountain View, CA) and have reliable transportation

Standard Benefits:

- Competitive wages
- Paid holidays
- · Housing assistance for those that qualify
- · Relocation assistance for those that qualify

HOW TO APPLY

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- 2. Complete your online candidate profile, and attach a resume
- 3. Click Submit
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Summer 2019 Internship – V2X Congestion Control
Research & Development – InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Develop simulator of Rel-14 LTE-V2X sidelink with SAE J3161 congestion control. Analyze the performance between DSRC and LTE-V2X with SAE congestion control in congested scenarios.

Required Qualifications:

- Strong knowledge of vehicular communications at PHY and MAC layers such as radio propagation, modulation, channel coding, and channel access mechanism
- Solid understanding of standardized communication technologies such as IEEE 802.11p/DSRC and LTE-V2X
- Strong coding skills in MATLAB and ns-3 for evaluation and analysis of wireless communication systems
- Currently pursuing PhD in Electrical Engineering or Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
- Good planning, time management, decision-making and organizational skills, and ability to manage several tasks at once
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 Must demonstrate a genuine interest in and willingness to work in the automotive / mobility industry post-graduation

Administrative Detail:

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 - o Computer Science, Electrical Engineering
- Sponsorship for employment-based visas or other work authorization may be available for this intern position
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Standard Benefits:

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- Housing assistance for those that qualify
- Relocation assistance for those that qualify

HOW TO APPLY

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Summer 2019 Internship - NR-V2X Communications
Research & Development - InfoTech Network Division | Mountain View, CA

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Job Summary:

Toyota is seeking PhD students in Electrical Engineering or Computer Science in the area of vehicular communications technologies.

Objective:

Develop Rel-16 NR-V2X simulator at PHY layer (sub-6 GHz and mmWave bands). Perform the research and development of mmWave V2X communications to improve the beam management of NR-V2X.

Required Qualifications:

- Strong knowledge of mmWave communications and vehicular communications at PHY and MAC layers such as radio propagation, modulation, channel coding, beamforming, and channel access mechanism
- Solid understanding of standardized communication technologies such as LTE and 5G
 NR
- Strong coding skills in MATLAB for evaluation and analysis of wireless communication systems
- Currently pursuing PhD in Electrical Engineering or Computer Science in the area of vehicular communication technologies
- Research and development experience of wireless communications in vehicular environments
- Familiarity with Microsoft Word, Excel, and PowerPoint
- Ability to engage in general research activities such as defining problems and issues to be addressed, finding and using research data, and being able to make recommendations and findings in writing and presentations
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Standard Benefits:

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