Computational EM Intern - Exploratory Design

Santa Clara Valley (Cupertino), California, United States

Earliest start time: Oct 2022
Latest start time: Jun 2023
Minimum duration: 3 months
Maximum duration: 12 months

Summary

Imagine what you could do here. At Apple, new ideas have a way of becoming extraordinary products, services, and customer experiences very quickly. Bring passion and dedication to your job and there's no telling what you could accomplish. Dynamic, smart people and inspiring, innovative technologies are the norm here. The people who work here have reinvented entire industries with all Apple Hardware products. The same passion for innovation that goes into our products also applies to our practices strengthening our commitment to leave the world better than we found it. Join us to help deliver the next groundbreaking Apple product! Do you love working on challenges that no one has solved yet? As a member of our dynamic group, you will have the unique and rewarding opportunity to craft upcoming products that will delight and inspire millions of Apple’s customers every single day!

Apple's Exploratory Design Group is looking for a computational electromagnetics intern. The employee will work on solving computational EM problems at multiple scales. The intern will be

responsible for both independent theoretical study and collaborations with a diverse team to enable differentiating technologies for future products.

Key Qualifications

- Expertise in optics and computational EM, especially FDTD.
- Proficiency in scripting.
- Familiar with parallel computing and distributed computing.

Description

- Design, develop, and conduct simulations to optimize optical devices.
- Develop and utilize simulation tools across multi-scale and multi-physics with a good understanding of the applicable regimes.
- Develop and utilize simulation tools leveraging modern computing environment, including cloud computing.
- Convert the simulation results to actionable information and collaborate effectively with the internal teams with diverse backgrounds.

Education

Currently enrolled graduate student pursuing a Ph.D. in physics, electrical engineering, optical engineering, etc.

Apply

Send resume to xd-em-intern@group.apple.com

Device Modeling Intern - Exploratory Design

Santa Clara Valley (Cupertino), California, United States

Earliest start time: Oct 2022
Latest start time: Jun 2023
Minimum duration: 3 months
Maximum duration: 12 months

Summary

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Apple's Exploratory Design Group is looking for a device modeling intern. The employee will work on solving device-level modeling. The intern will be responsible for both independent

theoretical study and collaborations with a diverse team to enable differentiating technologies for future products.

Key Qualifications

- Expertise in semiconductor device modeling especially for optoelectronic devices.
- Knowledge in materials, optics, physics.
- Familiar with parallel computing and distributed computing.

Description

- Design, develop, and conduct simulations to optimize devices.
- Develop and utilize simulation tools across multi-scale and multi-physics with a good understanding of the applicable regimes.
- Develop and utilize simulation tools leveraging modern computing environment, including cloud computing.
- Convert the simulation results to actionable information and collaborate effectively with the internal teams with diverse backgrounds.

Education

Currently enrolled graduate student pursuing a Ph.D. in electrical engineering, physics, optical engineering, etc.

Apply

Send resume to xd-device-intern@group.apple.com

Computational Semiconductor Material Intern - Exploratory Design

Santa Clara Valley (Cupertino), California, United States

Earliest start time: Oct 2022
Latest start time: Jun 2023
Minimum duration: 3 months
Maximum duration: 12 months

Summary

Imagine what you could do here. At Apple, new ideas have a way of becoming extraordinary products, services, and customer experiences very quickly. Bring passion and dedication to your job and there's no telling what you could accomplish. Dynamic, smart people and inspiring, innovative technologies are the norm here. The people who work here have reinvented entire industries with all Apple Hardware products. The same passion for innovation that goes into our products also applies to our practices strengthening our commitment to leave the world better than we found it. Join us to help deliver the next groundbreaking Apple product! Do you love working on challenges that no one has solved yet? As a member of our dynamic group, you will have the unique and rewarding opportunity to craft upcoming products that will delight and inspire millions of Apple’s customers every single day!

Apple's Exploratory Design Group is looking for an intern with background in computational semiconductor materials. You will take full advantage of high-fidelity simulations at multiple scales to

investigate material properties from first principles. You will work on material R&D including theoretical study and collaborating with a diverse internal team to optimize the device-level integration of the materials for future products.

Key Qualifications

- Background in fundamental material science and solid-state physics.
- Expert in computational material methodologies.
- Proficient with high-throughput and HPC.
- Familiar with optoelectronic device physics, device fabrication, material growth, failure analysis to collaborate with the experimental cross-functional teams.

Description

- Understand the physics behind the materials and associated device properties, and apply knowledge of the fundamental material science to create innovative solutions.
- Design, develop, and conduct simulated experiments to optimize the materials and devices.
- Collaborate with fabrication and characterization teams.

Education

Currently enrolled graduate student pursuing a Ph.D. in material science, electrical engineering, applied physics, physics, chemistry, chemical engineering, mechanical engineering, optical engineering, etc.

Apply

Send resume to xd-mat-intern@group.apple.com

Computational Chemistry Intern - Exploratory Design

Santa Clara Valley (Cupertino), California, United States

Earliest start time: Oct 2022
Latest start time: Jun 2023
Minimum duration: 3 months
Maximum duration: 12 months

Summary

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Apple's Exploratory Design Group is looking for an intern with background in computational chemistry. You will take full advantage of high-fidelity simulations at multiple scales to

investigate material properties from first principles. You will work on material R&D including theoretical study and collaborating with a diverse internal team to optimize the device-level integration of the materials for future products.

Key Qualifications

- Background in fundamental material science, with knowledge of small molecules, polymers, and inorganic materials.
- Familiar with computational material methodologies.
- Proficient with high-throughput and HPC.
- Basic knowledge of synthesis and fabrication to collaborate with the experimental cross-functional teams.

Description

- Understand the physics behind the materials and associated device properties, and apply knowledge of the fundamental material science to create innovative solutions.
- Design, develop, and conduct simulated experiments to optimize the materials and devices.
- Collaborate with fabrication and characterization teams.

Education

Currently enrolled graduate student pursuing a Ph.D. in chemistry, chemical engineering, material science, polymer science, physics, mechanical engineering, etc.

Apply

Send resume to xd-mat-intern@group.apple.com