Leon Montealegre

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Education

Rensselaer Polytechnic Institute (RPI), Troy, NY | Master of Science
M.S. *in Computer Science*
Fall 2021 - Spring 2022

Rensselaer Polytechnic Institute (RPI), Troy, NY | Bachelor's of Science
B.S. *in Computer Science, Applied Mathematics, and Physics*
2017 - Spring 2021 GPA *3.70* ***magna cum laude***

Coursework

Data Structures
Principles of Software
Numerical Methods for Diff. Eqs.
Intro to Machine Learning
Advanced Computer Graphics
Computational Vision
Quantum Physics 1 & 2
Foundations of Computer Science
Computer Organization
Numerical Solutions of Wave Eqs.
Parallel Computing
Geophysical Fluid Dynamics
Advanced Calculus
Introductory Quantum Mechanics
Introduction to Algorithms
Computational Linear Algebra
Numerical Solutions of PDEs.
Finite Element Analysis
3D Visual Effects
Theoretical Mechanics
Experimental Physics

Technical Skills

Languages: TypeScript, JavaScript, C++, Java, Python, GLSL, C, C#, PHP, SQL, HTML, (S)CSS, Golang
Frameworks/Libraries: React, Electron, Bootstrap, npm, NumPy, Docker, Webpack, Jest, Redux
Software: Adobe Photoshop, Adobe Illustrator, Android Studio, Autodesk Maya, Unity, XCode, Logic Pro X

Work Experience

Google Inc. // (New York, NY | Fall 2022 - present) // *[SRE/SWE on Firebase]*
I work primarily with Firebase Messaging which is the set of services involved in delivering billions of daily notifications to billions of devices around the world. We work to make these services secure and reliable through automation, uniformity, and continuous improvement. We also aim at keeping downtime and latency to a minimum while reducing all system and operational costs involved.

Google Inc. // (New York, NY | Summer 2021) // *[Software Engineering Intern]*
I worked with the Dependency Management team, an internal team developing infrastructure to better manage dependencies for services within Google. I specifically created a visualization tool to allow users to more easily understand the composition of their dependency graph.

Projects/Research

OpenCircuits // www.opencircuits.io // *[Project Leader]*
My open source project. It began as an independent study with a professor at Pasadena City College and is being used by students for logic design classes. It's a free web-app that allows you to create and design digital circuits using logic gates, LEDs, switches, etc. This project has also evolved a sister-project that allows users to design and simulate analog circuitry through the open source NGSpice library.. The project has been hosted through RPI's Rensselaer Center for Open Source (RCOS) for multiple years now where I've directly managed a team upward of 25 people.

Honors

HackRPI IBM Natural Disaster Mitigation and Relief Competition 1st Place
Fiat-Chrysler Design Competition Winner
RPI Leadership Award and RPI Dean's Honor List