

HERNÁN STEVE CHALCO

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Oakland, CA

Summary

Aspiring Software Engineer and recent Berkeley Math graduate looking to simultaneously learn and turn out clean/reusable code for ambitious tech company. Highly motivated with an inherent passion for learning and solving complex algorithmic challenges.

Education

University of California, Berkeley – Graduated December, 2017
B.A. Mathematics

Skills

Computer Languages

Proficient in C++ and Javascript with experience using Python, Java, Matlab, HTML, and CSS

Completed courses in technical topics:

C++, Objective-C, Data Structures, Numerical Analysis, Linear algebra, Elementary Analysis, Complex Analysis, Calculus, Mechanics, Electromagnetism

Additional Skills:

Ability to analyze and communicate complex technical information, and works well in team setting

Software and Tools:

Visual Studio Code, Vim, Git, Xcode, React Firebase, Firestore and Node.js

Spanish Fluency

Projects & Relevant Experience

COMPUTATIONAL RECONSTRUCTION OF PROTEIN STRUCTURES THROUGH CRYOELECTRON MICROSCOPY

- Responsible for the translation and analysis of the mathematical model necessary for the composition of 2D images in Fourier Space. In doing so, bridging the gap between theory and practical application.
- Completely responsible for the code behind the “stitching” of 2D images in order to render a 3D reconstruction of protein structures.
- Gained extensive experience working under pressure in critical production environments.

NUMERICAL ANALYSIS IMPLEMENTATIONS (MATLAB)

- Responsible for the mathematical analysis and implementation of algorithms that approximate the solutions to systems of linear equations, such as Gauss-Seidal and Jacobi.
- Ensured the convergence of iterative techniques used to approximate solutions to ordinary differential equations. Subsequently implemented said techniques on Matlab.
- Responsible for the implementation of computational techniques for locating eigenvalues.

GARAGE SCRIPT CODING COMMUNITY (STUDENT AND MENTOR)

- Teach javascript lesson plans to incoming students with different skill levels.
- Solve web development challenges using Javascript, HTML, and CSS.

Work History

TUTOR- Self-Employed

January 2015 – December 2015

- Facilitated activities that furthered the development of students’ academic growth
- Worked with students 1-on-1 to and tailored tutoring to each student’s individual needs

PARALEGAL- Law Office of Samuel Ogbogu

October 2012 – March 2013

- Performed research to assist attorneys in related casework in a timely and efficient manner
- Interviewed clients for personal injury cases and composed subsequent interrogatories