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Dustin Healy

San Francisco Bay Area

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Technical Skills

PHP, Javascript, Node.js, Python, Java, C, C#, Unity, ARMv8, Github, Git, Algorithms, HTML, CSS, Blockchain, Unit Testing, Vim, Bash, Figma

Work Experience

Full-Stack Software Engineer, Cal Poly State University 2023 – Present

- Spearheaded full-stack web development using PHP and MySQL for educational products funded by the NSF (#1821638), to advance engineering education. The various applications and programs I created are now deployed to all program universities (Cal Poly, Tufts, OSU, and more).
- Developed a CMS platform to translate internal XML definitions into dynamically generated web pages, enabling rapid development and deployment of educational tools by admins.
- Created interactive physics simulations in C# using the Unity engine, specifically for statics and momentum. Simulations are now integral in the upper-division engineering curricula.

Part-Time Software Engineer, Cal Poly State University 2022 – 2023

- Planned and implemented a MySQL database solution to maintain student records across page visits, ensuring data integrity for exam submissions.
- Translated educational requirements and grant objectives into technical specifications, balancing the project's success with the alignment of academic goals.

Engineering Projects

Job Flow AI 2024

- Developed a full-stack TypeScript app for AI-tailored resumes using React, Express, and MongoDB.
- Implemented real-time markdown editing with PDF preview using SimpleMDE and wkhtmltopdf.
- Integrated Claude AI API to automatically optimize resumes based on job descriptions.
- Built secure user authentication system using Clerk with JWT token refresh.

Zero-Dependency Bitcoin Wallet Created in Javascript 2023

- Created a library in Javascript using zero external dependency packages.
- Wrote a custom SHA-256 implementation according to the NIST secure hash standard.
- Implemented utilities to generate a Bitcoin wallet using the RIPEMD hashing algorithm.

Education

Bachelor of Science in Computer Science, Cal Poly State University 2019 – 2023

GPA: 3.5 | 3x Dean's List Recipient

Coursework

Object-oriented programming in Java, Systems Programming in C, Data Structures in Python, Linear Algebra, Discrete Structures, Algorithm Design, Statistics, Computer Architecture, Database Systems

Personal

My passions are 3D modeling, design, metalworking, and software engineering. I recently built a motorcycle from parts, which I've been learning to ride in my hometown in the Bay Area.