

DAVIS CARMICHAEL

Phone: 206.427.6419 E-mail: carmichael@chapman.edu Portfolio



EDUCATION

Chapman University, Fowler School of Engineering, Schmidt College of Science and Technology
Orange, CA

Bachelors of Science in Physics and Bachelors of Science in Computer Science

December 2022

PROJECTS

Desmos Algebra

Developed a custom computer algebra system allowing users to input equations and generate solutions for all possible permutations. Utilized Rust, Haskell, and Shell Scripts, leveraging Dockerfiles for seamless deployment.

- Designed the algorithm for parsing mathematical syntax and generating permutations.
- Implemented the program in Rust and Haskell, ensuring robust functionality.
- Orchestrated deployment using Dockerfiles, streamlining accessibility for users.
- Enhanced the efficiency of equation solving, providing a versatile tool for mathematical analysis.

Tutoring Website

Developed a full-stack web application to schedule physics tutoring sessions. Implemented with mongoDB, React on Netlify.

- Created an intuitive and accessible user experience using React
- Implemented user authentication with Google OAuth-2.
- Stored appointment data in MongoDB, while protecting users personal information.
- Implemented backend functionality using Netlify serverless functions.
- Built and deployed using Netlify CI/CD.

SKILLS

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|---|---|
| • Programming Languages: Java, JavaScript, C/C++, C#, Python, Rust, Haskell | • Classical Mechanics, Thermodynamics, Quantum Mechanics, Optics; Laboratory and Theory |
| • Database Technologies: DynamoDB, SQL, MongoDB | • Mathematical and Scientific Computing Methods of Analysis |
| • Docker and System Programming | |

EXPERIENCE

Costco Wholesale

Food Service Assistant

Tustin, CA

July 2023 – Present

Chapman University Tutoring and Learning Center

Supplemental Instructor

Orange, CA

August 2022 – December 2022

Evan's Creek Landscaping

Landscape Technician

Sammamish, WA

Summer 2019, Summer 2021

LEADERSHIP

Chapman's Cross Country/Track & Field Team Leadership Committee

July 2019 – May 2021

CHARACTERISTICS

- *Awards:* Washington State Honors Award, Highest Athletics Team GPA 4 years (Cross Country)
- *Traits:* Communication, Adaptability, Leadership, Collaboration