# DAVIS CARMICHAEL

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#### **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.
- Significantly enhanced the efficiency of equation solving, providing a versatile tool for mathematical analysis.

## TIC-TAC-TOE

Implemented a versatile Tic Tac Toe game using React, featuring multiple modes including simulated gameplay against the computer, player versus computer, and a two-player mode.

- Developed the game logic and user interface using React components.
- Integrated various gameplay modes to cater to different user preferences.
- Implemented algorithms for simulating computer moves and determining game outcomes.
- Demonstrated adeptness in React development and game design principles, resulting in an engaging and adaptable gaming experience.

### **SKILLS**

- Programming Languages: Java, JavaScript, C/C++, C#, Python, Rust, Haskell
- Database Technologies: DynamoDB, SQL, MongoDB
- Docker and System Programming

- Classical Mechanics, Thermodynamics, Quantum Mechanics, Optics; Laboratory and Theory
- Mathematical and Scientific Computing Methods of Analysis

# **EXPERIENCE**

Costco WholesaleTustin, CAFood Service AssistantJuly 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