

# DAVIS CARMICHAEL

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## EDUCATION

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

*Bachelor of Science in Physics and Computer Science*

*December 2022*

## PROJECTS

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### 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

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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

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### 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

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**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