

# DAUS CARMICHAEL

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## PROJECTS

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**betties.app** | *Next.js, React, PostgreSQL, Selenium*

*Social betting app where users can create, place, and cash bets with friends*

- Responsive social media web app with mobile and desktop support using React
- Stores betting history, transactions, groups, and profile info in a Supabase PostgreSQL DB
- Features social functionalities including adding friends and creating private groups
- Gathers live PGA tour data using Python and Selenium web scrapers

**Desmos Language Model and Computer Algebra System** | *Rust, BNFC, Haskell, Dockerfile*

*Custom computer algebra system that evaluates permutations of basic algebraic expressions*

- Implemented a Context-Free Grammar for parsing Desmos syntax and structured expression handling
- Isolates and rearranges for each variable in the requested equation
- Operates with a recursive function adhering to basic algebraic principles
- Provides ease of access through Dockerfile configurations to allow cross-platform use

**WordleBot** | *Java, Build files, APIs*

*Command line interface that solves the popular NYT word game, Wordle*

- Java algorithm succeeds in calculating the puzzle 100% of the time
- Verifies 5 letter combinations by calling the [DictionaryAPI](#)
- Provides automatic installers and configurations for both Windows and macOS
- Enhances user interaction and accessibility through a React-based interface

## TECHNICAL SKILLS

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- **Languages:** Haskell, Java, JavaScript, Python, React, Rust
- **Databases:** AWS S3, DynamoDB, MongoDB, PostgreSQL
- **Web-Scraping Tools:** Selenium, cURL
- **Development Tools:** Shell scripts, Batch files, Git

## WORK EXPERIENCE

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**Assistant Center Director** at Mathnasium of Marina del Rey (*August 2024 – Present*)

**Math Tutor** for Study Smart Tutors (*August 2024 – Present*)

**Food Service Assistant** at Costco Wholesale (*July 2023 – July 2024*)

**Private Tutor** for Physics, Math, and Computer Science (*December 2020 - May 2023*)

**Supplemental Instructor** at Chapman University Tutoring and Learning Center (*August - December 2022*)

## EDUCATION

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**Chapman University - Class of 2022**

*Bachelor of Science in Physics*

*Bachelor of Science in Computer Science*

**Orange, CA**

*August 2018 - December 2022*

- **Relevant Coursework:** Database Design, Algorithm Analysis, Data Structures and Algorithms, Scientific Computing, Human-Computer Interaction, Compilers & Programming Languages

## LEADERSHIP

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**Chapman Cross Country/Track & Field Team Leadership Committee**

*July 2019 – November 2022*