

Brandon Foley

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Digital Portfolio: <https://bfoley05.github.io/>

EDUCATION

CHAPMAN UNIVERSITY

Bachelor of Computer Science

Integrated Master's of Electrical Engineering and Computer Science

Orange, CA

August 2023 - May 2026

August 2026 - May 2027

Awards: Provost List, Provost Scholarship, California Scholarship Federation recipient, Hispanic Scholarship Fund Scholar

Relevant Coursework: Data Structures, Data Communications and Computer Networks, Database Management, Object-Oriented Programming, Python Programming, Linear Algebra and Differential Equations, Multivariable Calculus, Unix/Linux intro, Engineering: Foundations Design and Fabrication, Discrete Mathematics, Statistics, Physics, 3D printing

SKILLS

PROGRAMMING LANGUAGES: C++, Java, Python, HTML, CSS, JavaScript, SQL

SKILLS: Github, Jenkins, Docker, Unix, Linux, Microsoft Office, Jira, Scrum, Agile

EXPERIENCE

SOFTWARE ENGINEERING INTERN

Collins Aerospace / Raytheon Intelligence & Space

San Diego, CA

June 2025 - Present

- Worked with a team of interns and software engineers in an agile scrum environment
- Utilized Python and SQL as well as Grafana to display metrics from sprints, boards, backlog, etc...
- Developed dashboards for better Jira efficiency within the workplace for specific teams and projects

HEAD RESEARCH ASSISTANT

Chapman University - AI in Biology

Orange, CA

June 2024 - Present

- Led a group of students in our efforts of protein folding and protein design/prediction using AI models
- Utilize supercomputers to run tests related to proteins and protein design as well as mutations within proteins

FRONT-END ENGINEERING INTERN

Tech Startup - Munch Insights - Remote Job

Manhattan, NY

April 2024 - June 2024

- Led the development of the front-end of a website for their restaurant, from the product list to add to cart
- Utilized HTML and CSS to develop the front end and TypeScript to connect to the back end and manage states connected by Svelte.
- Collaborated with the CEO, and was mentored by the VP of engineering throughout the development

WINNER OF CHOC AWS DATATHON

Lead on model development

Orange, CA

May 2024

- Cleaned a real dataset with healthcare data to prepare for using it within a model
- Utilized Python and its many libraries to create neural networks, linear regression, and random forest models to try and make the best use of the data that we could
- Presented in front of hundreds of PHD, Masters, doctors, and industry professionals about our findings

WINNER OF CHAPMAN AMAZON WEB SERVICES DEEPRACER EVENT

Chapman students and CHOC employees

Irvine, CA

March 2024

- Developed a reward function to develop the fastest car around a track
- Used Python and AWS to develop and test the reward function
- My model generated the fastest lap time out of all participants

LA HACKS HACKATHON

Lead on model use and front-end functionality

Los Angeles, CA

April 2024

- Led the development of an innovative project aimed at using AI technology to analyze various factors of a person's body, such as shoulder width, body fat percentage, and body structure, to generate personalized workout materials.
- Developed two neural networks, which we integrated into our website, one utilizing OpenCV and the other leveraging Google's Gemini AI.
- Created a Python-based website utilizing REFLEX to serve as both the frontend and backend of the project.

LEGOLAND CALIFORNIA LIFEGUARD/RIDE OPERATOR

Lead Lifeguard, Ride operator, Part-time/Seasonal

Carlsbad, CA

June 2021-August 2024

- Developed lifelong skills, including CPR and other medical necessities
- Teamwork and communication skills with guests and co-workers to make a welcoming environment

PROJECTS

PERSONAL TRAINER AI PROGRAM

August 2024-May 2025

- Developed a program using Garmin watch data to help generate a workout plan that is best for the user
- Used an API to take in data and predict factors that could analyze a workout and predict the best workout plan for a user
- Worked in a team to develop a frontend for our project where we can have users upload the data and analyze it

MYSQL RIDESHARE APP

March 2025 -April 2025

- Designed and implemented a normalized MySQL database for a ride-sharing app, including ER diagrams, schema creation, and referential integrity with primary and foreign keys.
- Developed an interactive Python program to support rider and driver workflows such as account creation, ride requests, history viewing, and rating submissions.
- Integrated SQL queries with Python logic to manage user sessions, match riders with available drivers, and update ride data dynamically based on user input.

INVOLVEMENT

CODE THE CHANGE PRESIDENT: Host weekly meetings and help create websites for clubs and individuals (2024-2025)

TRACK AND FIELD/POLE VAULT: DIII Pole Vault, time management between track and classes, teamwork between athletes, discipline, and commitment to train every day and show improvement throughout the year

FUN FACTS

- Huge traveler, National Park enthusiast, music - french horn, trumpet, active in both the gym and sports, thrill-seeker