

Ryan Cavanagh

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WORK EXPERIENCE

Flexport

Full-Stack Engineer

July 2022 – Present

- Designed, implemented, and integrated 3rd party services for instant verification of bank accounts, resulting in improved user experience.
- Refactored legacy monolith code, leading to a 20% improvement in webhook event emit times.
- Collaborated with and retained high-volume clients to address their needs and implement new features.

American Express

Software Engineer Intern

June 2021 – August 2021

- Improved build times 80% by converting a Java repo from Maven to Gradle.
- Built, deployed, and presented new API to help developers access Elasticsearch data more securely and faster.

California State University Long Beach

Research Assistant (Machine Learning)

January 2021 – January 2023

- Composed CNN, RNN, and ensemble models to predict gait cycles from test individuals.
- Paper pending review.

Research Assistant (Robotics)

November 2019 – March 2022

- Collaborated with The Aerospace Corporation in developing robotics software.
- Incorporated object recognition packages for robotic autonomy in the system.
 - Created the dataset and trained the model.

PUBLICATIONS

- Cavanagh, R. and Trajkovic, J., "**Simulation Environment for Modeling and Testing of Autonomous Assembly in Space for Multiple Robotic Arms**," SAE Technical Paper 2022-01-0012, 2022, doi:10.4271/2022-01-0012.
- Cavanagh, R. and Trajkovic, J., "**Value Prediction for Spatiotemporal Gait Data using Deep Learning - A Pilot Study**," Paper Pending Review.

EDUCATION

California State University Long Beach

August 2018 – May 2022

BS Computer Science

- GPA 3.85
- 2022 Outstanding Graduate – Computer Science

PROJECTS

Chess Game

- Two-player Chess game.
- Supports en passant, castling, pawn promotion, check, checkmate, and stalemate logic.

Meeting Calendar App

- MacOS app
- Retrieves events from the calendar, searches for meeting links, and automatically starts meetings.

SKILLS & LANGUAGES

- **Languages:** Ruby, React, JavaScript, TypeScript, Python, Java, C#, Swift, C++, XML, JavaScript, SQL, NoSQL
- **Web Development:** Strong web development skills, building both clean UIs and reusable middleware and component systems.
- **Project Management:** Experience driving large-scale projects in a fast-paced and highly collaborative environment.