

## Experience

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**Software Engineer II**  
Broomfield, CO

**BAE Systems, Inc.**

**Nov 2023 – Present**

- Leading the team for the SATCOM application that uses React/NextJS and Python using Flask, with Linux.
- Architecting the protocols needed to communicate with the Python, C++ and Ruby embedded software.
- Engaging in software design & code reviews using Agile methodologies, reducing the total rework time by 7%.
- Developing software in Python, Ruby, C++, and TypeScript for Linux-based systems.

**Research Scientist**  
Riverside, CA

**CE-CERT**

**Mar 2023 – Jun 2023**

- Explored the capabilities of the Cohda Wireless MK6 OBU for Vehicle-to-Anything communication
- Successfully established communication between two OBUs to exchange basic safety messages using C++
- Developed the necessary software for communication and receiving geospatial data with under 20 ms latency

**Graduate Teacher Assistant**  
Riverside, CA

**UC Riverside**

**Jan 2023 – Jun 2023**

- Conducted weekly lab sessions to guide 100 students through C++ assignments.
- Assisted students as well as grading coursework that includes the foundations of programming in C++.
- Received an overall approval rating of over 95% in student evaluations.

**Frontend Developer**  
Riverside, CA

**MindTApp**

**Aug 2020 – Oct 2020**

- Designed and developed the UI for the iOS & Android applications using the Flutter SDK.
- Dynamically presented data fetched from the Google Firebase NoSQL database.
- Coordinated with the Backend team to ensure the RESTful API architecture maximizes efficiency.
- Assisted in the successful launch of the application on the App Store and Play Store.

## Projects

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- **Image Captioning using CNN + LSTM with Attention**

Collaborated with a team of 2 to develop a deep learning model that combines a Wide ResNet50 encoder with a LSTM decoder and an attention layer to generate image captions using PyTorch, pandas, numpy, and PIL.

- **Breast Cancer Dataset Analysis**

Collaborated with a team of 3 to analyze a dataset and predict breast cancer diagnoses using machine learning techniques like Random Forest, K-Nearest Neighbors, and SVM using scikit-learn, pandas, and numpy.

- **Kroya - Peer-to-Peer Rental Marketplace**

Built an online rental marketplace using ReactJS, Python Flask RESTful API back-end, MongoDB, and AWS services (S3, Cognito, EC2), enabling users to list & rent items. Integrated Stripe for payments and implemented customer-focused modeling to improve user engagement and retention.

- **Smart Chessboard**

Led a team of 4 and designed the Flutter front-end application with a Python back-end using Websockets and an AI for the construction of a smart chessboard using LEDs and a touch screen.

## Skills

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- **Programming Languages:** Python, Ruby, JavaScript, TypeScript, C++
- **Software:** Scikit-learn, TensorFlow, Keras, PyTorch, OpenCV, Git, Docker, Podman
- **Technologies:** AWS, MongoDB, Google Firebase, React, NextJS, HTML, CSS, Flask, Linux

## Education

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**University of California, Riverside**  
Masters of Science in Computer Engineering

**Sep 2022 – Jun 2023**

**University of California, Riverside**  
Bachelors of Science in Computer Engineering

**Sep 2019 – Mar 2022**