# **Brian Fu**

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## Summary

Junior undergraduate EECS major at UC Berkeley looking for an intern position in the field of Software Engineering. Excellent at problem solving and works well with other people. Loves to write code and learn new things, and is looking to apply his passion and skills to the professional industry.

## Skills and Technologies

Python, Java, C#, C, C++, Git, GitHub, JBoss, IntelliJ IDEA, Eclipse, Spring Tool Suite, Algorithm Design, SQL, HTML, Google Cloud Platform, Apache Maven, Azure DevOps, Agile Software Development

#### Education

#### University of California, Berkeley

Berkeley, CA

Bachelor of Science in Electrical Engineering and Computer Sciences (EECS)

Aug 2021 – May 2025

- GPA: 3.73
- Relevant Coursework: CS170: Efficient Algorithms and Intractable Problems, CS61A: Structure and Interpretation of Computer Programs, CS61B: Data Structures, CS61C: Great Ideas of Computer Architecture (Machine Structures), CS188: Introduction to Artificial Intelligence, EECS126: Probability and Random Processes
- Spring 2023: Tutored 2 sections of 5 students each CS61B(Data Structures and Algorithms) through Berkeley CSM. Gives guidance and practice to students for reviewing material they learned in class

### Experience

#### **Software Engineer Intern**

May 2023 – Present

Humana

Louisville, KY

- Designed and implemented a Mock Object in Java for a paid third-party service called Relay Health for use in load testing. Saves up to \$100,000 monthly
- Created a full stack Spring application using the Spring Boot Java framework to deploy the Mock Object as a microservice with a REST API endpoint, utilizing the Unirest HTTP client library
- Wrote SQL queries for analysis and testing through SQL Server Management Studio to recognize how the black box service parses and outputs a response given a request
- Collaborated on a team utilizing Scaled Agile methodologies to automate the fulfillment and delivery process of over 600,000 mail-order prescription daily

#### **Undergraduate Student Researcher**

Aug. 2021 – Present

Radwatch @ UC Berkeley

Berkeley, CA

- Wrote algorithms in Python to analyze gamma radiation from various fish samples in the Bay Area
- Conducted data analysis with NumPy and Pandas on radiation levels due to rainfall in the Bay Area. Results displayed on a research poster
- Researching and building a transimpedence amplifier for a radiation detector with smaller volume

## **Projects**

**Radiology Report Classifier**: Worked on a machine learning model to detect lung cancer in patients. Wrote preprocessing techniques for NLP in Python using nltk and spacy. Used classic machine learning models to capture semantic meaning in text

**Gitlet**: Created a basic version control system which mimics basic features of Git in Java. Implemented commands init, add, commit, rm, log, checkout, branch, and merge among other features. Utilized different data structures and algorithms to meet time constraints

**Screen Translator**: Created a backend in node.js that uses Google Cloud Vision API to detect text in images, translate it to another language, and get a copy-pastable version of it. Utilized Google Cloud Storage for file storage and lookup