Anthony Deng

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Education

University of California, Berkeley GPA: 3.50/4.00
B.S. in Electrical Engineering and Computer Science *Aug. 2020 – May 2024*

Relevant Coursework: Data Structures, Computer Architecture (Machine Structures), Discrete Mathematics, Probability, Database Systems, Algorithms, Operating Systems, Full-Stack Development, Compilers [In Progress]

Technical Skills

Languages: Java, Python, C, SQL, JavaScript, HTML/CSS
Frameworks: React, Bootstrap, Node.js, ExpressJS
Data Handling: pandas, polars, NumPy, Matplotlib
Workflow: Git, Bitbucket, Jira, Confluence

Experience

Software Engineering Intern May 2023 – August 2023
Onsemi - F500 Semiconductor Manufacturer

- Wrapped a third-party vendor API service in **Python** to provide convenient database access to company engineers, saving ∼$5000 on licensing costs.
- Reduced querying times by an average of 30% by rewriting existing **SQL** queries for the most common use cases.
- Parsed nested JSON request objects into human-readable, analysis-ready **pandas** DataFrame objects.
- Coordinated with external developers through **Jira**, **Confluence** and Microsoft Teams to address concerns/discuss potential improvements in vendor service.

Web Development Member August 2022 - September 2023
Open Computing Facility - UC Berkeley

- Develop web applications, with Berkeley alumni and students, to increase campus organization recruitment/outreach by an average of 100%.
- Convert **HTML/CSS** markups from Figma templates, made dynamic with vanilla **JavaScript**.
- Create, test, and integrate **React** components into existing document object models.
- Extend and maintain the OCF website's backend using **Node.js** and **MongoDB** to account for an increase in OCF services.

Academic Intern August 2022 - December 2022
CS61B: Data Structures - UC Berkeley

- Introduced **Java**, core data structures, and graph/sorting algorithms to 30+ students in lab sections.
- Thoroughly debugged, optimized, and documented project source code for future iterations of the course.

Projects

Automate: A Twitter Bot
Calhacks (Hackathon)

- Referenced Twitter's API using the Tweepy **Python** library to develop a Twitter bot that automated tweeting/direct messaging.
- Incorporated ChatGPT's AI model to generate relevant content when given specific keywords.
- Deployed the bot on PythonAnywhere's virtual environment as a cron job to automate its functionality.

Pintos: Kernel Programming
CS162: Operating Systems - UC Berkeley

- Built upon the Pintos operating system, using **C** and **x86**, to strengthen its support for user program execution, multi-threading, and file system operations.
- Used synchronization primitives to avoid race conditions in a multi-threading context, maintaining program accuracy across threads.
- Developed an adaptive thread-scheduling algorithm to efficiently manage CPU access across processes.