SHOMIL JAIN

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EDUCATION

University of California, Berkeley – College of Engineering   **Spring 2022**

- **Major:** Bachelor of Science, Electrical Engineering and Computer Science
- **Scholarships**: Regents' and Chancellor's Scholar | Cal Alumni Association Leadership Scholar
- **Coursework**: Machine Learning, Artificial Intelligence, Computer Security, Efficient Algorithms and Intractable Problems, Discrete Mathematics and Probability, Designing Information Devices and Systems, Machine Structures, Data Structures
- **Teaching:** Computer Security (Emphasis on Web & Network Attacks) – Summer & Fall 2020
- **Organizations**: Mobile Developers of Berkeley (VP Development), Student Tech Council (Office of the CIO)

PROFESSIONAL EXPERIENCE

Software Engineering Intern – Palo Alto Networks   **May 2019 - August 2019**

- Developed a sequential analysis engine for unsupervised pattern extraction and anomaly detection of log data from JIRA
- Deployed an analysis and visualization tool through a Flask front-end to drop individual log analysis time by an estimated 40%
- Used Python, Scikit-Learn, Pandas, Word2Vec, MongoDB, and Flask to implement a full stack data analysis pipeline

Software Engineering & Data Science Intern – Berkeley SkyDeck Fund   **September 2018 - May 2019**

- Architected a data-driven fund operations pipeline for deal flow management, international sourcing, and ecosystem analysis
- Created and deployed chatbots to automate quarterly updates, office hour scheduling, and more using Python & Dialogflow
- Built an internal team portal using Flask to facilitate investor ratings/rankings and manage the SkyDeck alumni network

Software Engineering Intern – Vayu Technologies   **June 2017 - July 2018**

- Architected a cross-platform mobile frontend for a wearable tech product for performance optimization and injury prevention
- Introduced and implemented an OTA firmware upgrade mechanism over Bluetooth LE interfacing with custom hardware

Software Engineering Intern – Messenger Terabit Networks, Inc.   **June 2016 - August 2017**

- Led a team of interns working on building a software frontend for an electronic logging device for the logistics industry
- Architected & deployed cross-platform apps to connect with custom proprietary hardware over the Bluetooth Classic protocol

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SELECTED PROJECTS

- **Voiceroom (WebRTC, React, Bootstrap, NodeJS):** A spatially-aware voice chat web app, where one's audio dynamically adjusts based on their position in a 2D grid to enable asynchronous conversations (https://voiceroom.us/).
- **Paz: Restorative Music (Python, Swift, GCP):** A fully-functional music streaming platform, with a native iOS frontend and a backend powered by Firebase. Features include in-app purchases, reminders, notifications, etc. (https://shomil.me/paz-app/).
- **EECS Diversity Dashboard (Python, Flask):** A visualization tool built to analyze UC Berkeley admissions data for a personal project studying diversity in EECS. Currently in use by EECS faculty & advisors (https://admissions.shomil.me/).
- **Security & Privacy Journal (Python):** A collection of articles containing security analyses of various topics, including COVID-19 apps, a data breach affecting UC Berkeley, and a loophole in the iOS Photos API (https://shomil.me/security/)
- **Orbit (Java, Python, Swift, JavaScript):** A no-code app development platform based on Google Sheets. The platform powers UC Berkeley's most popular cross-platform mobile app (Bear Central) with 15,000 downloads and 4,000 active users.
- **Seminar (Python, Java, Swift):** A discussion-based platform targeting implicit bias by connecting students of diverse backgrounds in the classroom. Awarded 3rd Place ($4K funding) from 300+ applicants in the Berkeley Big Ideas competition.

SKILLS & HOBBIES

- **Languages & Platforms:** Python, Java, JavaScript, C/x86/RISC, Swift, Go | iOS/Android, React, Bootstrap, Express, Flask, Node
- **Databases & Technologies:** MySQL, MongoDB, Google Cloud Firestore, NoSQL | GCP, AWS, Firebase
- **Data Science & Machine Learning:** NLP, Scikit-Learn, Pandas, Numpy, Plotly/Dash, Google ML Kit