

Kourosh Arfania

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EDUCATION

University of Southern California, Viterbi School of Engineering and Marshall School of Business
B.S. in Computer Science/Business Administration

Los Angeles, CA
05/2025

Honors & Programs: Full-Tuition Trustee Scholar, Viterbi Undergraduate Fellow, Grand Challenges Scholar

GPA: 3.93

Relevant Coursework: Accelerated Programming in Python, Discrete Methods in Computer Science, Data Structures, Algorithms, Software Development, Computer Systems, Operating Systems, Software Engineering, Swift Programming

EXPERIENCE

The Cigna Group

Bloomfield, CT

Full Stack Engineering Intern

May 2023-Present

- Authoring data workflows with **Apache Airflow** in a **docker-compose** environment to automate script execution through a variety of polling, scheduled, and instance-driven triggers
- Deploying compliant **AWS** Architecture with **Terraform**, including **S3**, **API Gateway**, **Route 53**, and **Neptune** for backend data processing and database interfacing that scales for petabytes worth of high security, encrypted medical data
- Leading a 7-member team in developing a **cloud-native API** with **Node.js** and **Lambda** to process medical questionnaires, store responses in **Neptune**, and explore relationships with **Gremlin** queries

USC Center for AI in Society

Los Angeles, CA

Undergraduate Research Assistant

August 2022-Present

- Running training and validation data on the megaSDM R package to simulate and predict the impact of climate change on 12 ESA-listed species' migration patterns
- Refactoring the package to enable various backend data pipelines and deployment on our **High-Performance Computing** cluster

Syntiant Corporation

Irvine, CA

Software Engineering Intern

July 2022-September 2022

- Created, packaged, and deployed a **Python CLI** with **Boto3**, **Click**, **Keras**, **PyMongo**, **BeautifulSoup**, and **yt-dlp** to scrape multimedia content, train voice recognition models, and populate a **MongoDB** instance with metadata and **S3** pointers
- Consulted with senior leadership to develop declarative **Jenkins** pipeline scripts for robust CI/CD across the enterprise

LEADERSHIP AND INVOLVEMENT

Shift SC

Los Angeles, CA

Co-Founder, VP of Communications

September 2021-May 2023

- Managed a team of 10 to promote the organization through tailored social media engagement and a weekly newsletter
- Consulted with the **Viterbi School of Engineering** to introduce their "Engineering in Society" program to the student body, enabling our team to present relevant AI, sustainability, and ethics modules to faculty and classrooms
- Wireframed, organized, and developed organization's launch website with **Figma**, **Ruby**, **HTML**, **SCSS**, and **JavaScript**

PROJECTS

roomiez

Spring 2023

- Full-stack **web application** that assists users in managing household responsibilities through a visualized aggregate task board with user-authenticated login, group management, and email notification services
- Leverages a multi-threaded **Spring** backend with controller, service, and repository layers and **Maven** dependencies deployed through **AWS Elastic Beanstalk**, **EC2**, **VPC**, and **Cloud RDS** based in MySQL
- Developed a **React** frontend with considerations from UI/UX user research to promote accessibility and human-centered design

philakit

Winter 2023

- An integrated web application, **chrome extension**, and data processing platform that improves consumer conscientiousness by informing users of the climate impact their purchases lead towards and suggesting local, sustainable non-profit involvements
- Built a **Flask** microservice that aggregated ESG reports of corporations, authenticated user log-in, stored user story information in **Firebase**, and implemented **RESTful API** services to route processed data

SKILLS AND INTERESTS

- Languages: English (Fluent), Farsi (Conversational), Mandarin (Basic)
- Technical: C++, Python (Flask), Java (Spring), JavaScript, TypeScript, MySQL, MongoDB, Linux, AWS, Docker, Node, React, Jenkins
- Interests: Environmentalism, Outreach, Running | Backend Software Development, Web Applications, Site Reliability