

# KOUROSH ARFANIA

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## EDUCATION

### University of Southern California

Los Angeles, CA

#### Bachelor of Science in Computer Science and Business Administration

August 2021-May 2025

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

Relevant Coursework: OOP, Data Structures, Algorithms, Software Development, Operating Systems, Swift Programming

## EXPERIENCE

### USC Viterbi School of Engineering

Los Angeles, CA

#### CSCI 201 Software Development Course Producer

August 2023-Present

- Teach students practical and theoretical applications of multi-threaded Java programming and concurrency, networking theory, Java Servlets, full-stack web development, software lifecycles and testing, and Agile/Scrum methodology
- Conduct tri-weekly office hours to assist an aggregate of 200+ students and lead a lab section of 25 students
- Build JUnit test suites to assess 4 coursework projects across semester, with topics ranging from API interfacing to race conditions and Relational Database Management Systems

### The Cigna Group

Bloomfield, CT

#### Full Stack Engineering Intern

May 2023-August 2023

- Deployed compliant AWS infrastructure with Terraform, including S3, API Gateway, Route 53, VPC, and DocumentDB, for scalable backend data processing and database interfacing across petabytes worth of high security, encrypted medical data
- Led a 7-member intern team to create a cloud-native backend with Node.js and Lambda to process medical questionnaires, store responses in Neptune, and explore relationships between responses with Gremlin queries
- Authored data workflows with Apache Airflow in a docker-compose environment to automate Teradata table insertion

### 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 write declarative Jenkins pipeline scripts for robust CI/CD across enterprise

## LEADERSHIP AND INVOLVEMENT

### Shift SC

Los Angeles, CA

#### Co-Founder, VP of Communications

September 2021-May 2023

- Established first student organization to promote human-centered, socially-responsible technology on USC's campus
- Managed a team of 10 to publicize organization through tailored social media engagement and a weekly newsletter
- Consulted with the Viterbi School of Engineering to develop "Engineering in Society" program, becoming first student organization team to present relevant AI, sustainability, and ethics modules to classrooms

## PROJECTS

### roomiez

March 2023-May 2023

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

### philakit

February 2023

- Ideated an integrated web application, chrome extension, and data processing platform improving consumer conscientiousness by informing users of big business climate impacts and suggesting local, sustainable non-profit involvements
- Built a Flask microservice to aggregate ESG reports of corporations, authenticate user log-in, store user story information in Firebase, and implement RESTful API services to route processed data

## SKILLS AND INTERESTS

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