# Kourosh Arfania

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## EDUCATION

**University of Southern California, Viterbi School of Engineering and Marshall School of Business**      **Los Angeles, CA**
B.S. in Computer Science/Business Administration      05/2025
**Honors & Programs:** Full-Tuition Trustee Scholar, Viterbi Undergraduate Fellow, Grand Challenges Scholar      GPA: 3.93
**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
- Educational resource for students with questions surrounding 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
- Building **JUnit** test suites to assess 4 coursework projects across the 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 backend data processing and database interfacing that scaled for petabytes worth of high security, encrypted medical data
- Led a 7-member intern team to develop 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
- Reduced enterprise team's backend maintenance costs by 33% through AWS migration and refactoring the code base

**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
- Established the first student organization to promote human-centered, socially-responsible technology on USC's campus
- 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 during its pilot

## 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
- 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**      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 have 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 (Node, React), TypeScript, MySQL, NoSQL, Linux, AWS, Docker, Jenkins
- Interests: Environmentalism, Running, Taekwondo | Backend Development, Web Applications, Site Reliability, DevOps