Arsalan Ghogari

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GitHub: https://github.com/arsalanghogari/

Education

University of Southern California: Viterbi School of Engineering, Marshall School of Business **Aug 2023 - Present**

Bachelor of Science, Computer Science/Business Administration; Spec., AI Applications
Study Abroad: University of Bristol, UK | Spring 2026

- GPA: 3.9; Presidential Scholar, Viterbi Scholar, Dean's List, W.V.T. Rusch Honors, Thematic Option Honors
- Relevant Coursework: Data Structures & Algorithms, Organizational Leadership, Communications, Business Statistics, App Development

Experience

Director of Digital Strategy, USC Undergraduate Student Government **May 2025 - Present**

- Manage and maintain USC USG's official WordPress website, improving accessibility, information architecture, and usability for over 20,000 students.
- Developed front-end features using HTML, CSS, and JavaScript, including dynamic homepage announcement systems and interactive election interfaces.
- Built and deployed Legislative Project Tracker and Senate Bill Tracker systems by integrating Google Forms, Sheets, and NinjaTables to automate transparency workflows.
- Developed an interactive Funding Tracker visualizing budget allocation across research, arts, philanthropy, and student initiatives.
- Initiated development of an AI-powered USC USG Chatbot using OpenAI embeddings, retrieval-augmented generation, and structured website ingestion pipelines to improve student access to campus resources.
- Resolved complex CSV parsing and synchronization issues affecting tracker reliability and maintainability.
- Invited (and accepted) to continue serving in the role for an additional academic year in recognition of technical contributions, initiative, and impact on USC USG digital infrastructure.

Software Programmer/Website Developer/Perception Lead, USC RoboSub **Jan 2024 - Present**

- Lead development of the AUV's perception stack, overseeing both computer vision and sonar-based object detection systems for autonomous navigation.
- Designed and trained a YOLO-based real-time underwater object detection pipeline for mission-critical perception tasks.
- Led Kubernetes deployment of ROS-based containerized services across Raspberry Pi and NVIDIA Jetson Xavier hardware for scalable and fault-tolerant operation.
- Developed and maintained ROS nodes for camera, IMU, and navigation systems while refactoring repositories into reusable GHCR container images.
- Built and maintained the team website using React and TypeScript, improving onboarding and technical documentation accessibility.

Math Peer Mentor, C.E.N.T.R.I.C. Program (USC Viterbi & Dornsife) **Aug 2025 – Dec 2025**

- Supported launch of USC Viterbi and Dornsife's mentoring initiative for first-generation and transfer students through one-on-one mentorship and outreach.
- Collaborated with 30+ professors, advisors, and residential staff to coordinate outreach and increase student engagement.
- Managed mentee application tracking, mentor matching, scheduling, and communication workflows

Technical Projects

AI-Powered Smart Seasoning Carousel | React, Tailwind CSS, OpenAI GPT-5.4, ESP32

- Built an AI-powered smart seasoning carousel integrating an ESP32 microcontroller with a React/Tailwind interface to streamline cooking workflows and ingredient organization.
- Integrated GPT-5.4-based recipe generation to recommend personalized meals and seasoning combinations based on available ingredients and user preferences.

Collaborative Note-Taking Application | Java, XML, Android Studio

- Developed a collaborative Android note-taking application featuring intuitive UI workflows and persistent note management functionality.
- Selected as one of the top 2 implementations out of 37 teams and invited to present the project to the class for technical and design excellence.

USC USG AI Chatbot | Python, OpenAI Embeddings, Retrieval-Augmented Generation (RAG), Unstructured AI

- Developing a retrieval-augmented chatbot to help students access USC campus resources using OpenAI embeddings and structured website ingestion pipelines.
- Designed semantic search workflows to improve information accessibility and reduce friction in navigating university services.

AI Travel Itinerary Generator | Java, Java Servlets, HTML, CSS, Google Gemini API

- Built an AI-powered itinerary generation platform using Java Servlets and dynamic frontend rendering to generate personalized day-by-day travel plans.
- Integrated Google Gemini APIs to tailor recommendations based on user interests, trip duration, and destination preferences.

Skills

Programming: Python, C++, C, Java, JavaScript, TypeScript, React, HTML/CSS, MATLAB
Technologies & Frameworks: ROS, Kubernetes, Docker, OpenAI API, YOLO, WordPress, Java Servlets
Tools: Git, Google Workspace, MS Office, OnShape, AutoCAD