# Arian Torshizi

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#### EXPERIENCE

#### Software Developer/Research Intern

March 2023 – October 2023

University of California San Diego

San Diego, CA

- Developed and enhanced **software applications** within a research lab environment, focusing on **advanced rendering** techniques and machine learning applications.
- Engineered a **Python**-based program utilizing a physically based renderer (Mitsuba) to enable the rendering of specified scenes from arbitrary viewpoints, which was to be used to train a **Machine Learning Pipeline**
- Participated in the design and development of a machine learning model tailored for **rendering novel scene viewpoints**
- Adapted an existing jointly-optimized NeRF pipeline, which achieved an average improvement of 21%, to work through arbitrary phase optics

#### **EDUCATION**

# University of California San Diego

San Diego, CA

Master of Science in Computer Engineering

Oct. 2024 - Dec 2025

• Beginning M.S. degree in Fall 2024

### University of California San Diego

San Diego, CA

Bachelor of Science in Computer Engineering

Oct. 2020 - Jun 2024

- GPA: 3.98
- Relevant Coursework: Software Engineering, Algorithms, Adv. Data Structures, Computer Vision, Deep Learning
- Student Organization: UCSD Scholar's Society

## Woodcreek High School

Roseville, CA

High School Diploma

Oct. 2016 - Jun 2020

- GPA: 4.33
- $\bullet \ \ Activities: \ Teaching \ Assistant \ (Calculus, \ Statistics), \ National \ Honor \ Society, \ California \ Scholarship \ Federation$

#### Projects

## Detailed Project descriptions can be found on GitHub

CloudImage | Java, Spring Boot, PostgreSQL, AWS S3/EC2, Andorid, React

Jun 2024 – Aug 2024

- Android and Web app for capturing and storing images in the cloud, connected using **Spring Boot** server
- Backend server runs on AWS EC2, images are stored on AWS S3, and user data is managed with PostgreSQL
- Frontend Android app and Web app built using React and user Authentication using JWT

PantryPal | Java, OpenAI APIs, MongoDB, RESTful APIs, Agile, Web Server

Oct 2023 – Dec 2023

- Desktop app to transcribe food ingredients and generate possible recipes and images with OpenAI APIs
- Built local Web server for client to allow multi-platform scalability, recipes for each user on MongoDB

Tarot Card Reader | HTML, CSS, Javascript, Jest, Firebase, Agile

Mar 2024 – Jun 2024

- Web app to generate daily fortunes using VertexAI and do tarot card readings
- Hosted on Firebase and connected to Firebase database to store user data and fortunes history

#### SKILLS

Programming Languages: Java, Python, C/C++, SQL, HTML, CSS, Javascript

Development Tools: AWS, Android, MongoDB, Firebase, Web Servers, REST APIs

Platforms and Frameworks: PostgreSQL, Spring Framework, React

Development Tools: Git, GitHub, Linux, Gradle, Docker, Agile Methodologies, Software Design Patterns

**Soft Skills**: Excellent debugging, problem solving, and collaboration skills

Spoken Languages: English, Farsi

# AWARDS

Henry G. Booker Memorial Honors Award

UCSD Chancellor's Scholarship

UCSD Provost Honors