

# Shishir Iyer

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## EDUCATION

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**B.S - Computer Science, UC San Diego**

*September 2021 - June 2025*

**Relevant Coursework:** Advanced Data Structures, Digital Design, Theory of Computation, Algorithm Design and Analysis, Database System Principles, Software Engineering, Deep Learning, Programming Languages, Computer Architecture, Operating Systems, Robot Systems Design, Computer Security, Parallel Computing

## INTERESTS

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I am currently a third year undergraduate student at UC San Diego studying computer science; some of my interests include backend engineering and machine learning. I have also recently started learning more about embedded systems. Above all, I enjoy working on projects at the forefront of different disciplines, as I can apply my skills in unique ways.

## SKILLS

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Java • Javascript • React • Node.js • C / C++ • Python (Pytorch, Pandas, Numpy, Matplotlib) • Bash • Rest APIs  
• Go • ARM Assembly • Linux • System Verilog • Haskell • SQL • DynamoDB • Spring

## WORK EXPERIENCE

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**Software Development Student Assistant, Scripps Institute of Oceanography**

*February 2023 - June 2023, September 2023 - Present*

- Worked on CoralNet, a platform that automatically annotates coral reef images using deep learning
  - Developed Pytest unit tests for Matplotlib analyses of training data
  - Designed user-friendly improvements and optimizations for the platform, such as an improved map view and displaying more information about data sources on the front page

**Software Engineering Intern, Intuit**

*June 2023 - September 2023*

- Developed a data ingestion pipeline for automating security asset reviews with generative AI
  - Security advice is provided in comments on JIRA tickets for assets; the JIRA tickets are kept up to date in an ODL (Operations Data Lake)
  - The primary logic was controlled by an AWS Lambda function that periodically queried the ODL using AWS Athena
  - The Lambda function then updates a DynamoDB with this data; the data wherein will then be sent to a Vector DB where it can be ingested into the LLM
- This project aims to increase coverage of low to medium risk assets by 60%; high risk assets will still be manually reviewed
- Made UI enhancements to the security asset review portal; this involved adding more views for future dashboards and content in the portal

## **STEM Tutor, Self Employed**

*Sep 2020 - Dec 2022*

- Provided remote tutoring for over 50 students in high school and college
  - Tutored for a variety of different subjects, including algebra, calculus, statistics, physics, chemistry, biology, and organic chemistry

## **PROJECTS**

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### [Flap.js](#)

*January 2023 - Present*

- Current team lead and maintainer for Flap.js
  - Flap.js is an open source web-based JFLAP clone developed by UCSD students used to design finite state automata
  - The website is tailored specifically towards students taking the Theory of Computation course
- Added support for Moore and Mealy machines
- Currently developing an automatic graph layout algorithm
- Technologies: Javascript

### [Spotify Analysis](#)

*August 2022 - September 2022*

- Created a website for visualizing audio analysis statistics from users' top 50 Spotify tracks
  - The website uses the Spotify API to determine statistics such as danceability, energy, and happiness of the tracks and displays them in a tabular format
  - This data is also shown in a histogram form using d3.js
- Technologies: Node.js, Express JS, d3.js

### [Minecraft Mapper](#)

*Sep 2021 - December 2021*

- Developed a plugin for Minecraft to generate a to-scale model of the Earth
  - The plugin uses GEBCO bathymetry data for terrain
  - The PRISM API is used to generate realistic biomes (only works for locations in the US)
- This plugin can be used to explore the geography of many different areas around the world through Minecraft
- Technologies: Java

## **AWARDS AND HONORS**

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### **Intuit Scholarship Recipient**

*May 2021 - Present*

## **OTHER LINKS**

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[LinkedIn](#)

[Medium](#)

[Github](#)

[Website](#)