

AVITEJ IYER

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Education

Pennsylvania State University

State College, PA

Bachelors of Science in Computer Science, Minor in Mathematics; 3.84 GPA

January '21 - May '24

- **Selected Coursework:** Data Structures and Algorithms, Computer Organization and Design, Blockchain Programming, Web-Based Applications, Probability Theory, Game Theory, Deep Learning and Computer Vision, Quantum Information Theory
- **Awards:** Sparks Medal (4.0 GPA maintained through Junior Year)

Skills

Languages: Python, Java, Lua, JavaScript, Go, C#, MIPS Assembly, C++, HTML, CSS

Developer Tools: Unity, Git, OOP, Databases, MySQL, Latex, Postman

Technologies/Frameworks: JDBC, JavaFX, Swing GUI, Keras, Tensorflow, Scikit-learn, Loopback

Certifications: AWS Certified Cloud Practitioner

Other Skills and Interests: Trilingualism (English-Hindi-Tamil), Currently learning Russian, Leadership, Writing, Public Speaking, Self-Taught Guitar and Bass, Badminton, Powerlifting

Experience

Valuefy

Remote

Software Engineering Intern

May '23 - August '23

- Converted part of wealth analysis codebase from Monolithic architecture to Microservice architecture using Loopback 3.x, reducing downtime for updates by about 60%
- Decreased project review time by about 70% by automating presentation creation using Python, Matplotlib and Hicharts to provide quick data insights
- Integrated multiple APIs into the trading codebase including GTN and Alpaca, and tested the same using Postman

RERC on AAC at Penn State

State College, PA

Capstone Team Lead

August '23 - Present

- Integrated an image recognition model into a Unity app to provide real-time object recognition via device camera
- Developed a marker system in AR using C# to guide users from one GPS co-ordinate to another
- Managed 4 other team members' workflows using Trello and Git

Pennsylvania State University

State College, PA

Guided Study Group Leader

August '22 - Present

- Facilitated revision lectures for Calculus 2, while working alongside the Mathematics department
- Created custom slides, Manim animation and worksheets for students
- Organised exam reviews for each major exam, with upwards of 400 students in attendance - with the average attendee's test scores being 12% higher than non-attendees

Pennsylvania State University

State College, PA

Learning Assistant

May '21 - Present

- Assisted professors by preparing course materials, conducting office hours for doubt clearing and grading
- Courses : Classical Mechanics, Discrete Math for Computer Science, Programming Language Concepts and Construction

Personal Projects

Tweet Emotion Recognizer

December '22

- * Implemented an NLP model which predicts the contextual emotion of a tweet.

Splice

May '23

- * Created a Tokenizer, Lexer, and Top-down Parser for a custom programming language written in Go

Blockchain Server-Client Node

April '22

- * Designed a mockchain, and implemented the corresponding server-client node in JavaScript

MDADM Linear Device

November '22

- * Implemented a storage device using JBOD architecture in Linux that has read/write capability and basic networking support

GUI Based Etch-a-Sketch

November '22

- * Recreated an "Etch-A-Sketch" using DOMS manipulation and standard JS libraries.