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.