

# AVITEJ IYER

✉ [iyeravitej2@gmail.com](mailto:iyeravitej2@gmail.com)

🌐 [linkedin.com/in/avitej-iyer](https://www.linkedin.com/in/avitej-iyer)

🐙 [github.com/avitej-iyer](https://github.com/avitej-iyer)

## 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.