Alvin Yang

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EDUCATION

Clemson University   **Clemson, SC**
Bachelor of Science in Computer Science   **GPA: 3.71 | May 2025**
Relevant Courses: Data Structures & Algorithms, Discrete Structures, Linear Algebra, Software Development Foundations, Introduction to Computer Organization
Hackathons: HelloWorld 2021, CUHackit 2022, LPL Financial Hackerama 2023

EXPERIENCE

MITRE Corporation   **Shaw Air Force Base, SC**
Computer Science and Software Engineer Co-Op   **May 2023 - Present**
- Enhancing MITRE's xAcademy learning platform through **full-stack** development, improvement of **UI/UX** design and the addition of admin features such as password recovery and granting administrators the capability to assess users **(VueJS, Docker, MongoDB, JavaScript, TypeScript, TailwindCSS)**
- Integrating **OpenAI API** with **YouTube API**, automating **GPT response** generation from video metadata, thus enhancing content quality and reducing labor-intensive tasks including content analysis, creation, and data entry
- Configuring simulators and software across various hardware, ensuring seamless network setup in preparation for demonstrations to esteemed Air Force sponsors and project collaborators
- Playing a pivotal role in a joint Army and Air Force exercise for CARPE Dronvm, effectively presenting the application to high-level military officials, securing additional sponsorship and funding from the Army Central Command

Sensor and AI for Psychotherapy - Creative Inquiry   **Clemson, SC**
Undergraduate Data Science Assistant Researcher   **January 2023 - May 2023**
- Collaborated with a team consisting of undergraduate students and professors to facilitate project advancement, including the strategic development of essential forms and plans for extracting valuable sample data
- Applied the **OpenBCI** Cyton Biosensing Board to collect scientifically-validated physiological data and used the **EEGLAB** toolbox in **MATLAB** for analysis and data visualization

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PROJECTS

Sentiment Analysis Stock Trader - GitHub   **January 2023**
- Developed a comprehensive full-stack application utilizing the **Django** backend framework to integrate the **Reddit API** and **Twitter API**, enabling the extraction of social media data related to the stock market
- Leveraged **TextBlob** for **NLP** tasks to perform sentiment analysis on the polarity scores of posts and display the values in the frontend empowering users to use the **Alpaca Paper Trader API** for an algorithmic approach to trading
- Utilized: Django, Django REST, Python, React, Typescript, TextBlob, Tweepy, Pandas, Numpy, Praw

KeyLogger-Plus - GitHub   **November 2022 - December 2022**
- Created a local keylogger that tracks the user's keyboard, performs data analysis, and visualization, employing an **SQLite** relational database for storing log information in real-time, along with a **Python GUI**
- Utilized: Python, SQLite, Numpy, TextBlob, Threading, Pynput, Datetime, Tkinter

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AFFILIATIONS

Associate Member and Scholarship Recipient of the Carolinas Chinese Chamber of Commerce   **July 2021 - Present**
- Engaging with the most prominent Carolinas-based non-profit organization fostering economic, cultural, and educational exchanges between China and the United States, with a cumulative member revenue exceeding $1 billion

Historian of the Clemson Asian Student Association   **April 2022 - April 2023**
- Documented and coordinated events for 70+ attendees with various on-campus organizations monthly

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ADDITIONAL INFORMATION

Skills: React, Vue, Python, Java, C, C++, C#, Docker, Relational Databases, JavaScript, TypeScript, Wireshark, Git, REST, HTML, TailwindCSS, Agile development, VMWare
Interests: Guzheng, Photography, Weightlifting, Cooking, Professional Networking