Sai Chaddha

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EDUCATION

Stony Brook University

Stony Brook, NY

Master of Science in Computer Science

Aug. 2023 - May 2025

• Concentration in Data Science and Engineering

Stony Brook University

Stony Brook, NY

Bachelor of Science in Computer Science, Applied Mathematics & Statistics

Aug. 2019 - May 2023

• Grades: 3.80 GPA, Dean's List, Magna Cum Laude Distinction

EXPERIENCE

Software Development Teaching Assistant

Jan. 2023 – May 2023

Stony Brook, NY

 $Stony\ Brook\ University$

- Assisted the professor by being the Head Teaching Assistant for 115 students and proctoring 3 exams
- Helped students by holding office hours for a minimum 3 hours a week, maintaining a presence in every lecture, holding 1 review session prior to every exam, and answering 100+ questions posted in the class question forum
- Fueled class collaboration through creating 7 Process Oriented Guided Inquiry Learning based worksheets

Software Developer Research Assistant

Aug. 2022 – Jan. 2023

Stony Brook, NY

Stony Brook University

- Displayed 200+ historical postcards written to loved ones from the 1870s to the 1940s on a singular platform through React and CSS
- Used Leaflet to design a map highlighting postcards from 25 countries with a legend of 8 colors for various empires
- Used Agile Software Development with Git version control and weekly meetings with fellow researchers

Software Engineer Intern

preparation for deployment

June 2021 – Jan. 2022

Bohemia, NY

Data Device Corporation

- Created, managed, and released a 25+ page GUI software verification description through black box testing in
- Achieved success in passing 50+ International Space Station chips through debugging legacy Visual Basic code
- Attained 98% confidence in a company robotic system by testing 800 company chips to train and debug the robot to perfectly place the chips in IC trays
- Sped up company CSV parsing through Regex pattern matching in Python

Projects

Distributed Banking System with Paxos Protocol | Java, Multithreading, Paxos, Git Sept. 2024 - Oct. 2024

- Handled 500 transactions across 5 servers with fault-tolerance in a distributed banking application developed using a multithreaded Java environment
- Achieved 100% consensus accuracy utilizing the Paxos consensus protocol for transaction conflicts
- Decreased transaction latency by 50% using thread-safe multithreading

AgentBert: Chatbot with Toxicity Detection | Python, PyTorch, HuggingFace

March 2024 – May 2024

- Achieved 93% accuracy in filtering out toxic input in a conversational chatbot trained with GPT2 and toxicity detection
- Trained one model of the chatbot with GPT2 and HateBERT using a weighted average of input and output
- Trained another model of the chatbot with toxic data and used T5 to classify the concatenated input and output

TECHNICAL SKILLS AND CERTIFICATIONS

Languages: Python, Java, C, JavaScript, HTML/CSS, Ruby, Go, Bash, C++

Frameworks: React.js, Node.js, d3.js, Express.js, Material-UI, MongoDB, SQL

Developer Tools: Git, Google Cloud Platform, VSCode, PyCharm, Google Colab, IntelliJ, Eclipse, Jupyter

Libraries: PyTorch, Pandas, Scikit-Learn, Matplotlib, Pytest, HuggingFace, Axios, Mongoose

Certifications: J.P. Morgan - Software Engineering Job Simulation