Ajay Sarjoo

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EDUCATION

Stony Brook University — Stony Brook, NY
Master of Science in Computer Science, GPA: 3.5 — *Expected May 2022*
- Relevant Courses: Analysis of Algorithms, Visualization, Data Science Fundamentals (in progress), Foundations of Human-Computer Interaction (in progress), Fundamentals of Computer Networks (in progress)

Stony Brook University — Stony Brook, NY
Bachelor of Science in Computer Science and Applied Math and Statistics, GPA: 3.54 — *August 2017 - May 2021*
- Honors: Accelerated BS/MS Program in Computer Science, Cum Laude, Dean's List
- Relevant Courses: Data Structures, Analysis of Algorithms, Systematic Program Design, Coding, and Testing, Software Engineering, Machine Learning, Natural Language Processing, Principles of Programming Languages

EXPERIENCE

Machine Learning Researcher — December 2019 - Present
Ethos Lab — *Stony Brook, NY*
- Explored the performance of deep learning models on mobile devices by constructing and training several convolutional neural network classifiers on multiple image datasets, achieved an average baseline testing accuracy of 88%
- Examined the strength of open-source video compression models, such as Facebook's SlowFast, by writing several adversarial attack scripts based on concepts such as Fast Gradient Sign Attacks and Frame Saliency Attacks
- Leveraged knowledge in Python libraries such as TensorFlow, GluonCV, OpenCV, PyTorch, and NumPy

Software Engineer Intern — May 2021 - August 2021
Blackstone — *New York, NY*
- Led a firm-wide initiative to detect and report personally identifiable information (PII) across Blackstone's internal datasets
- Identified the best PII detection service to integrate into the final data pipeline architecture by evaluating several AWS and Microsoft services through proof-of-concept development for accuracy and scalability
- Discovered over one million instances of PII across the datasets by architecting, building, and deploying a robust PII detection and reporting data pipeline that runs on a daily basis
- Leveraged knowledge in Python, Apache Airflow, AWS Macie, AWS S3, AWS EC2, Terraform, Snowflake, SQL, and Tableau

Machine Learning Intern — June 2020 - August 2020
Bloomberg LP — *New York, NY*
- Researched and developed a system to detect critical alarms in company servers up to several hours in advance by training and testing an anomaly detection model on over 200,000 system logs
- Assessed the employee experience on over 28,000 hardware replacement tickets by creating a sentiment analysis API to determine user feedback, scaled the API to different problem types
- Leveraged knowledge in Python libraries such as Flask, TensorFlow, Streamlit, and Plotly, and JavaScript frameworks such as React.js

Machine Learning Intern — May 2019 - August 2019
Bloomberg LP — *New York, NY*
- Developed a natural language processing heuristic that applies topic modeling on over six million tickets to determine commonly asked questions by clients, created an API to provide business insight made possible by the topic modeling
- Streamlined the team workflow for executing over 100 backend cleanup scripts by designing and deploying a web application that creates and executes these scripts based on user-specified parameters
- Leveraged knowledge in Python frameworks such as Flask and Django, web development languages such as HTML, CSS, and JavaScript, and machine learning libraries such as NLTK, Sci Kit-Learn, and pyLDAvis

PROJECTS

Muse - *MongoDB, Express.js, React.js, Node.js, Spotify API, Bootstrap* — August 2020 - December 2020
- Collaborated with two other members to build and deploy a mixtape sharing service
- Powered key features, such as search, song playback, and content sharing for over 50 million songs by leveraging the Spotify API
- Modernized the user interface by creating material-like components for over 9 views using React.js

PressPlay - *MongoDB, Express.js, React.js, Node.js, Ant Design, JWT* — May 2020 - August 2020
- Created a full-stack web application that emulates a video-streaming service
- Contrived core functionality, such as the login system, drag-and-drop video uploads, comments, and likes/dislikes, using Express.js
- Stored information for thousands of users and video metadata by developing several database schemas using MongoDB
- Stylized the look and feel of over 15 user interface components using React.js and Ant Design

SKILLS

Languages: Java, Python, MySQL, MongoDB
Data: TensorFlow, NLTK, Sci-Kit Learn, Pandas, NumPy
Web Development: HTML/CSS, JavaScript (ES6), React.js, Node.js
Tools and Technologies: Git, Docker, Linux, AWS, Apache Airflow