Joseph Anthony Bosco IV

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Entry-level software engineer with special interest in NLP and predictive analytics, looking to enhance my implementation skills by collaborating on a team to build reliable solutions for real-world data science problems.

Education

Washington and Lee University — Lexington, VA	**Cornell University** — New York, NY
Bachelor of the Sciences, Computer Science Major	Masters of Engineering in Computer Science
Overall GPA 3.89 │ Major GPA: 3.96	GPA Non-Applicable
- Class of 2024	- Class of 2025

Relevant Coursework: Generative AI, Machine Learning, Databases, Distributed Systems, Parallel Computing

Programming Languages and Skills

- Proficient: Python (including PyTorch, Pandas, NumPy, Scikit-learn and MatPlotLib), SQL
- Experienced: C, Java
- Skills: GitHub, AWS, Big Data, Machine Learning, Feature Extraction, Communication, Organization, Collaboration

Projects

***ChatGPT Classic*- OpenAI Custom GPT**　　　　　　　　　　　　　　　　　　　　　Oct. 2023-Jan. 2024
- Developed customized version of standard ChatGPT model, optimizing for enhanced performance in professional assistance
- Employed advanced AI development techniques, including fine-tuning parameters and integrating custom datasets

Kaggle Competition　　　　　　　　　　　　　　　　　　　　　　　　　　　　Nov. 2023
- Created deep learning model for Kaggle.com titanic competition using PyTorch
- Classified target-less data entries with 78% accuracy, finishing in top 25% on competition leaderboard

Personal Website　　　　　　　　　　　　　　　　　　　　　　　　　　　　　Feb. 2023
- Designed personal website using HTML and CSS
- Implemented request handling and data collection with SQLite and Python Flask

OpenAI Gym　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　May, 2022
- Implemented reinforcement learning for OpenAI's Cart Pole and Pendulum environments
- Solved both environments with 1,000 episodes of training to reach maximum reward threshold

Minecraft Server Hosting　　　　　　　　　　　　　　　　　　　　　　　　　Oct.-Dec. 2021
- Programmed application in Java to moderate personal Minecraft multiplayer world
- Hosted server on AWS EC2 instance, played with friends

Experience

Machine Learning Research Assistant, NYU Langone Health　　　　　　　　　　　　Nov. 2023-Current
- Collaborated with medical professionals to analyze pre and post-operative knee replacement data
- Performed feature selection using Scikit-learn algorithms, performed ML to model patterns from pre to post-operative cases
- Communicated results to research team, demonstrating the ML models effectiveness with Matplotlib

Generative AI Engineer, Mock Convention Generative AI Committee　　　　　　　　Nov. 2023-Feb. 2024
- Prepared plain-text dataset of speech and debate transcripts for unsupervised learning
- Finetuned LLM from HuggingFace.co on custom dataset using PyTorch

Multiple Roles, Washington and Lee University

    Machine Learning Research Assistant, Dept. of Neuroscience　　　　　　　　　Jan.-Apr. 2023
- Communicated with neuroscience professionals to suggest ML algorithms for predictive modeling
- Performed feature extraction with Pandas dataframes, collaborating with research team on GitHub
- Developed neural net classifier using PyTorch and NumPy with 96% classification accuracy, 0% false negatives

    Data Mining Intern, Dept. of Data Science　　　　　　　　　　　　　　　　Jun.-Sep. 2022
- Collaborated with a team to perform data collection on large database
- Established research base of 95 digital estate management services and summarized prior academic work
- Communicated research results to organize digital survey, qualitative interviews and request for IRB approval

    Teaching Assistant, Dept. of Computer Science　　　　　　　　　　　　　　Sep. 2021-Apr. 2022
- Advised students taking CSCI-111: Introduction to Programming in Python
- Organized and delivered office hours for CSCI-112: Advanced Introduction to Programming and Data Structures in C

Extracurriculars

- Developed team-building skills as a varsity wrestler, earned Academic All-American honors
- Organized social events as Health and Safety Officer of Pi Kappa Alpha Fraternity, Pi Chapter
- Advised LGBTQ+ undergraduates on AI and Computer Science career resources as President of W&L's Queer in AI chapter, affinity group of oSTEM