MICHAEL SEXTON

New York, NY | ms3648@cornell.edu | linkedin.com/in/michaelsexton21/

PROFESSIONAL EXPERIENCE

MadMen AI, Data Scientist and Full Stack Engineer, Remote   **August 2024-Present**
- Automated marketer workflows by developing new features in React application using **Next.js**, **Prisma**, and **Postgres**, improving efficiency and reducing manual workload.
- Enhanced application performance and reliability by reducing load times through **pagination, asynchronous processing, client-side caching,** and code refactoring, while independently managing deployments and resolving issues.
- Executed data analysis to optimize our marketing agency's ad-testing strategy and minimize testing costs using Python.
- **Validated key business assumptions** by analyzing ads from external companies using **flight time** (ad runtime) as a measure of success, leveraging **Python** and open data from Facebook's Ad Library to derive actionable insights.

IBM, Data Scientist and Software Engineer, Poughkeepsie, NY   **June 2021-July 2023**
- Executed and deployed a Machine Learning pipeline using **SQL**, **Python**, and **Kubeflow** to predict the failure of CPUs in 10,000 Mainframes up to **30 days early**, eliminating downtime costs.
- Designed and maintained custom reporting structures for the z16 and z15 mainframes, supporting the Thermal, Power, and Optical teams in continuous health monitoring of all systems.
- Onboarded, trained, and mentored new Data Scientists.

Code Ocean, **Data Scientist (Promoted from Intern)**, New York, NY   **June 2020-April 2021**
- Engineered and integrated features using **AWS** and **Docker** to implement large-scale bioinformatics pipelines with parallel execution decreasing processing time by **60%** for Code Ocean's Computational Reproducibility Platform.
- Boosted user retention and acquisition by replicating research papers on the CO platform, enhancing engagement, and expanding the user base.
- Engaged in competitive analysis which informed strategic decisions.

Paragon Global Markets, Data Analysis Intern, New York, NY   **June 2019-August 2019**
- Developed and implemented a custom financial reporting software using **Python**, **SQL**, and **Tableau** creating actionable insights into the business.

Layer 7 Consulting, Intern, New York, NY   **June 2018-August 2018**
- Conducted independent site visits for hedge funds, brokerage firms, trading businesses, and law firm clients to perform diagnostics and remediation of critical hardware and software.

EDUCATION

Cornell University, New York, NY   **August 2023-May 2024**
Master of Engineering, Computer Science
- Merit Scholarship Recipient | Co-President of the Cybersecurity Club | Cornell Tech Campus | Student Ambassador
Relevant Coursework: Machine Learning Engineering • Big Data • Applied Machine Learning • Security and Privacy

University of Wisconsin-Madison, College of Engineering, Madison WI   **August 2018-May 2022**
Bachelor of Science, Computer Engineering and Computer Science
- Artificial Intelligence Club, Data Science Club, Software Development Club
Relevant Coursework: Artificial Intelligence • Neural Networks • Database Management Systems • Data Structures

ACADEMIC PROJECTS

- Machine Learning Engineering (Cornell): Built a Pytorch replica, implementing Autodifferentiation, Tensors, GPU, and Parallel Processing.
- Cornell: Building Startup Systems (Cornell): Developed, built, and deployed a marketplace using a Next.js React frontend, integrated with Firestore for database management and Firebase Authentication for user security.
- Neural Networks (Wisconsin): Tested different data augmentation approaches to classify images of various cities using TensorFlow, Python, and transfer learning of the RESNET model achieving an 80% accuracy rate. **Team Captain**
- Engineering Capstone (Wisconsin): Built the robot BB8 from Star Wars from scratch with a custom-built circuit board and accompanying Bluetooth Android control application in Java using Android Studio. **Team Captain**

SKILLS

Programming Languages: Python, SQL, Typescript, JavaScript, Java, C++, C
Packages: Pandas, Numpy, PyTorch, TensorFlow, Keras, Plotly, Matplotlib, Jupyter
Databases: DB2, Firestore, Postgres, MySQL, MongoDB
Frameworks: Docker, Spark, Kubeflow, React, Firebase, CUDA
Areas of Expertise: Data Science, Software Engineering, Machine Learning, Backend, Frontend
Citizenship: US Citizen, Irish Citizen