

# MICHAEL SEXTON

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## EDUCATION

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**Cornell University**, New York, NY

**Expected May 2024**

Master of Engineering in 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, double major in 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

## PROFESSIONAL EXPERIENCE

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**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 deployed in the field for over 10,000 Mainframes up to 30 days early, eliminating unexpected downtime
- Designed, developed, tested, and deployed custom software solutions for engineers using SQL and Python to predict the failure of thermal and power systems in all Mainframes, ensuring 100% uptime and decreasing reactive repairs
- Responsible for the onboarding and training of new Data Scientists on the team
- Started as Intern, hired part-time during undergraduate education, hired full-time after graduation
- IBM Chess Team

**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
- Designed and executed Data Science projects using Python that increased user retention, generated new users, and increased user productivity as well as multiple competitive analysis

**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

## ACADEMIC PROJECTS

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**Cornell University, Computer Science Department**, New York, NY

**August 2023-May 2024**

- Machine Learning Engineering: Built a Pytorch replica, implementing Autodifferentiation, Tensors, GPU, and Parallel Processing.
- Building Startup Systems: Developed, built, and deployed a marketplace using a Next.js React frontend, integrated with Firestore for database management and Firebase Authentication for user security.

**University of Wisconsin-Madison, Computer Engineering Department**, Madison, WI

**September 2021-May 2022**

- Neural Networks: 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: 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**
- Computer Architecture: Designed and implemented a 16-bit five-stage pipelined MIPS processor with integrated data and instruction cache in Verilog. **Team Captain**

## TECHNICAL SKILLS

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- **Programming Languages:** Python, SQL, Java, C++, JavaScript
- **Tools/Packages:** Pandas, Numpy, Docker, AWS, Spark, Kubernetes, Kubeflow, Keras, PyTorch, Tensorflow, Plotly, Matplotlib, Jupyter, Verilog, Git, React, Vercel, Firebase, CUDA, Tableau, Linux, DB2
- **Areas of Expertise:** Data Science, Machine Learning, Data Analysis, Time Series Analysis, Deep Learning, Neural Networks, Natural Language Processing, Backend, Frontend, Product Lifecycle, Communication Skills
- **Citizenship:** US Citizen, Irish Citizen