**MICHAEL SEXTON**

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# EDUCATION

## Cornell University August 2023 - May 2024

### Master's, Computer Science

* **Merit Scholarship Recipient** | Co-President of the Cybersecurity Club | Cornell Tech Campus | Student Ambassador
* **Runner-up** in Cornell’s Startup Ideation Competition for developing a **React** application marketplace for trading Proxy Voting Rights, out of **27 teams**.
* Relevant Coursework: Machine Learning Engineering, Big Data, Applied Machine Learning, Security and Privacy

## University of Wisconsin - Madison August 2018 - May 2022

### Bachelor's, Computer Engineering and Computer Science

* **Dean's Honor List**
* Artificial Intelligence Club, Data Science Club, Software Development Club
* Relevant Coursework: Artificial Intelligence, Neural Networks, Database Management Systems, Data Structures

# PROFESSIONAL EXPERIENCE

## IBM Poughkeepsie, NY, USA

### Data Scientist and Software Engineer 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.
* Started as Intern, hired part-time during undergraduate education, hired full-time after graduation

## Code Ocean New York, NY, USA

### Data Scientist 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, utilizing **Docker** and **Python**
* Started as Intern, hired part-time during undergraduate education.

## Paragon Global Markets New York, NY, USA

### Data Analysis Intern 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 New York, NY, USA

### Intern 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.

# PROJECTS

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* Machine Learning Engineering: Built a **Pytorch** replica, implementing Autodifferentiation, Tensors, GPU, and Parallel Processing.
* 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.**

# SKILLS

**Languages:** Python, SQL, JavaScript, Java, C++, C

**Packages:** Pandas, Numpy, PyTorch, TensorFlow, Keras, Plotly, Matplotlib, Jupyter

**Databases:** DB2, Firestore, Postgres, MySQL, MongoDB

**Frameworks:** Docker, Spark, Kubernetes, Kubeflow, React, Firebase, CUDA

**Tools:** Verilog, Git, Vercel, Linux, Tableau, Postman

**Expertise:** Data Science, Software Engineering, Machine Learning, Time Series Analysis, Backend, Frontend

**Citizenship:** US Citizen, Irish Citizen