Ryan Strotman

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Objective: A full time Software Engineering position starting in spring 2021

Education

M.S. COMPUTER SCIENCE ENGINEERING **DEC 2020**

- The Ohio State University, Columbus, Ohio Overall GPA (4.0 scale): **4.0**
- Related Coursework: Distributed Enterprise Computing, Reinforcement Learning, Machine Vision, Network Security, Machine Learning, AI, Distributed Operating Systems, Network Programming, Advanced Algorithms, Programming Languages, Automata and Formal Languages, Cryptography
- Technical Skills: Python, C#, .NET, WPF, PowerShell, R, C, SQL, Java, C++, VBA, SUMO

B.S. | Computer Science Engineering | Ohio State University | Dec 2019 | 3.83/4.0

High School Diploma | St. Xavier High School | May 2016

Work Experience

INTERN SOFTWARE ENGINEER | DATANCHOR MAY 2020 – PRESENT

- Designed, created, and maintained a front-end Windows desktop application using C#, .NET, WPF, C++
  - Applied the MVVM pattern to make reusable, extensible, and testable UI and business logic
  - Implemented a background process that interacts with privileged processes through Named pipes
  - Used concurrency to keep the app responsive while running long tasks and making network calls
- Built an automatic upgrade feature that allows users to update DAtAnchor's software seamlessly. C#
  - Assembled an application to scan for updates, stop processes, perform upgrade, and restart processes. Utilized Named pipes and JSON for inter process communication.
- Created an automatic test script for regression testing on DAtAnchor's core features using PowerShell
  - Reduced regression testing time by 30%, by using the AAA technique to create over 40 tests

INTERN SOFTWARE ENGINEER | FOX SPORTS MAY 2018 – AUGUST 2018

- Worked on the NFL Prediction System which simulates an NFL football season using data and AI
  - Predicted Field Goals in the NFL with an AUC of .86, using R and Machine Learning
  - Implemented neural networks and logistic and linear regression models for punt plays using C#
  - Reduced run time by over a half, by writing stored procedure in SQL
  - Made many filters for sorting data in an internal UI, using server-side sorting and the MVC pattern

INTERN SOFTWARE ENGINEER | NEXT ERA ENERGY MAY 2019 – AUGUST 2019

- Prepared data to create a Machine Learning model for turbine failure prediction using Python
- Created a GUI to compare wind turbine groups using MVC, Python, and AWS Lambda functions
- Wrote a script to pull, process, and insert data from excel files into a Relational Database using VBA

Personal Projects in My Free Time

- Built a web-based messaging app without a framework using Python, JS, AJAX JULY 2020
  - Implemented HTTP and web sockets to immediately update users of new messages
  - Created a Relation Database using MySQL to store and retrieve users and messages
- Created board games (Nim, Go, Chess, Connect 4) using C#, MATLAB, and C++, React

School Projects

- Implemented Q-Learning (RL) techniques for traffic optimization using Python and SUMO APRIL 2020
- Adapted Google's Alpha Go to a Connect 4 AI that learns to play from no previous knowledge using Reinforcement Learning, Neural Networks (Keras), MCTS, and Python DECEMBER 2019
- Collaborated in a 4-person team to recreate a 2D Mario game using many design patterns to reduce coupling and increase cohesion and reusability; C#, .NET AUGUST 2018 – DECEMBER 2018