

## Joseph Dubill

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### Education:

Computer Science B.S.                      University at Buffalo                      August 2017 - Dec 2021

### Professional Experience:

SUNY Research Foundation                      Software Development Intern                      June-December (2019)

- Used Java to implement Collaborative Filtering and K-Modes Clustering for the purpose of predicting future cyber attacks.

- Implemented data structures and parsing algorithms in Java to extract and organize features from datasets for use in model training.

- Used React.js with Redux to facilitate the display of training data and prediction results for client presentations.

### Projects:

Automata Simulator - HTML5/CSS/JS/Vis.js

- Used Vis.js to design and implement a web browser application that simulates the processing of inputs on Deterministic and Non-Deterministic Finite Automata, and regular expressions.

4AM Forum - PHP/HTML5/CSS/JS/MySQL

- Designed, built, and deployed a responsive webpage that aids in class administration.

- Used PHP for generation of dynamic web content and MySQL to securely manage and access databases containing personal user information.

Language Interpreter - OCAML

- Built a stack based language interpreter in functional OCAML for parsing inputs and performing arithmetic operations.

Reliable Data Transfer Protocols - C

- Wrote the sending and receiving transport-level code in C for three reliable transfer protocols: Alternating Bit Protocol, Go-Back-N, and Selective Repeat.

TCP Socket Chat Server - C

- Used Sockets to develop a text chat application consisting of one server and multiple clients communicating over TCP.

### Skills:

Java/C#	C/C++	Python, R	HTML/CSS
React.js	SQL/MySQL	PHP	Git

### Relevant Coursework:

Software Engineering	Data Structures	Operating Systems
Algorithms & Complexity	Networking Concepts	Programming Languages
Machine Learning	Machine Learning Ethics	Digital Systems