Matthew Garrison

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EDUCATION

University of Central Florida Expected Graduation: May 2020
B.Sc. in Computer Science GPA: 3.69

EXPERIENCE

Microsoft May 2019 – August 2019
Software Engineer Intern *Seattle, WA*

- Created a process mining custom visual for PowerBI using TypeScript, d3, and Dagre.
- Custom visual allows users to graph, filter, and perform analysis on a process.
- Custom visual performs automated analysis – setting reasonable default filter levels and detecting bottlenecks in the process.
- Used Python and R and the pm4py and bupaR libraries to experiment with various process mining techniques.

Voloridge Investment Management May 2018 – August 2018
Software Developer Intern *Jupiter, FL*

- Developed a regression testing framework for an internal program used by researchers.
- Implemented functions in C# to compute exponentially-weighted, rolling-window average and variance on a stream.
- Added a new input field to an internal tool that allows the user to define custom, weighted functions.
- Used a Sparse Table and binary search to generalize a function to work on any sequence, rather than just monotonic sequences.

UCF Programming Team Sept. 2016 – May 2018
Team Member *Orlando, FL*

- Placed in the top 15% of competing students in order to join the team (based on speed and accuracy of solutions), using Java.
- 1st place in Junior/Large School division and 4th overall at 2017 Mercer contest.
- 9th place in Division 1 at 2017 Southeast Regionals.

PROJECTS

COP4520 (Concepts of Parallel Systems) Group Project C++, RSTM
github.com/matthewgarrison/COP4520-Data-Structure-Project

- Implementation of "Scalable Lock-Free Vector with Combining" paper in C++.
- Highly scalable, parallel, lock-free vector using bounded queue for combining.

SKILLS

Languages: Java, C#, Python, TypeScript, C, LaTeX