dhavalsonavaria.github.io **DHAVAL SONAVARIA** dhsonava@syr.edu

EMPLOYMENT

Software Development Intern **SVP Global LLC** **Summer 2019**

- In this Hedge Fund, I developed desktop applications for the Accounting, Trading and Operations teams
- Automated the process of transferring positions between funds and posted to the Geneva Accounting system
- Generated wire transfer instructions fed into State Street and Geneva for operations, accounting teams.
- Created CI/CD pipelines in Azure DevOps for applications and microservices, migrating to Azure cloud.

Web Development Intern **Ingress Interactive** **Summer 2017**

- In this Digital marketing startup, I performed maintenance of E-commerce websites as per client and SEO.
- Duties included reducing plugins, CSS files, implementing responsive images and detecting 404 errors.
- Used Test driven development(TDD) and prepared statements to prevent SQL injection attacks.

EDUCATION

M.S. in Computer Science **Syracuse University** **Fall 2018 – May 2020**

Analysis of Algorithms, Computer Security, Software modelling and Analysis in C#.NET, Object Oriented Design in C++, Structural programming in Haskell, Natural Language Processing, Operating Systems, Internet Security.

B.E in Computer Engineering **University of Mumbai** **Fall 2014 – May2018**

Operating Systems, Databases, Advanced Algorithms, Data structures, Theoretical Computer Science, Computer Networks, Applied Mathematics.

TECHNICAL EXPERIENCE

Accounting/Operations Dashboard (Summer 2019) C#.NET, WPF, MVVM, RabbitMQ

- Created applications to select positions and transfer funds between them showing real time positions.
- Developed application to generate wire transfer instructions that automated the money transfer process.
- Applications used RabbitMQ for real-time updates, logging and REST API calls following a SOA design.

Remote Code Analyzer (Fall 2018) C#.NET, WPF, WCF

- Developed a distributed system that uses tokenizer, semi-expressions, parser to evaluate data types, objects
- A type table of each file is created which is used to create a dependency table of a remote directory.
- Used Tarjan's algorithm to find strongly connected components of dependency graph in a remote directory.
- Created an engaging GUI using WPF, used WCF to connect client and server via asynchronous blocking queue.

Source code publisher for Projects (Spring 2019) C++, JavaScript, HTML, WPF

- This distributed system finds and loads files from a directory using DFS matching a regular expression.
- A state-based Parser is used to tokenize files and evaluate dependencies of a file to other header files.
- Matched files are converted to HTML files and sections are created to show/hide comments & dependencies.
- Created an engaging GUI that allows file directory browsing and converted file viewing in C#.NET, WPF.

SEcurity EDucation (SEED) labs (Fall 2019) C, Python, Shell script

- Hands-on experience performing and understanding counter measures of software security attacks like Buffer-Overflow, Shellshock, Race Condition, Dirty COW, Format String, Return to lib-c, Android Root and Repackaging, Meltdown, Spectre Attacks as well as vulnerabilities of Set-UID and environment variables.

Skills and Interests

Languages: C++, C#.NET, C, Python, Shell script Tools: Azure DevOps, Git, SSMS, WireShark, nmap