

DHAVAL SONAVARIA

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Employment

Software Engineer, Intern	SVP Global LLC	May 2019 - August 2019
<ul style="list-style-type: none">• Developed desktop applications for Accounting, trading and Ops teams using .NET Framework and core.• Automated the process of transferring positions between funds and posted to the Geneva Accounting• Generated wire transfer instructions fed into State Street and Geneva for operations, accounting teams.• Created CI/CD pipelines leveraging IaaS and PaaS for applications and microservices, migrating to cloud.		

EDUCATION

Syracuse, NY	Syracuse University	Aug 2018 - May 2020
<ul style="list-style-type: none">• M.S. in Computer and Information Science 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.		
Mumbai, India	University of Mumbai	Aug 2014 – May 2018
<ul style="list-style-type: none">• B.E in Computer Engineering		

PROJECTS

CFS, Virtual Memory in NachOs	Fall 2019	C++, Shell Script
<ul style="list-style-type: none">• Implemented asynchronous I/O system calls, exception handling using call-back objects and alarm interrupt.• Implemented the Linux Completely Fair Scheduler(CFS) using Red-Black trees sorted in order of virtual time.• Implemented Virtual Memory as part of a Memory manager that used a Linux file as DISK, a page table and a round-robin scheduler that implemented Demand paging to implement multiprogramming in OS.		
SEcurity EDucation (SEED) labs	Fall 2019	C, Python, Shell script
<ul style="list-style-type: none">• Hands-on experience performing and understanding counter measures of software security attacks• Software Security: Buffer Overflow, Shellshock, Format String, TOCTTOU, Dirty COW, Reverse Shell.• Web Security: CSRF, XSS, SQL Injection Attacks. Hardware Security: Meltdown, Spectre attacks• Network Security: Packet Spoofing, SYN Flooding, TCP Reset, Session Hijacking, DNS Cache poisoning.		
Accounting/Operations Dashboard	Summer 2019	C#.NET, WPF, MVVM, RabbitMQ
<ul style="list-style-type: none">• 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 Source code viewer	Spring 2019	C++, JavaScript, HTML, WPF
<ul style="list-style-type: none">• An asynchronous client-server desktop application that converts source code to informative web pages• Used a C++ back-end to find dependencies among source code files and parse them to HTML files.• Implemented code and comment drop downs and buttons on web pages using JavaScript and CSS.• GUI allows remote directory browsing and uses sockets to communicate with the C++ factory interface		
Remote Code Analyzer	Fall 2018	C#.NET, WPF, WCF
<ul style="list-style-type: none">• Asynchronous client server application that parses source code to find SCC's using Tarjan's algorithms• Detected classes, functions, signatures using a stack-based parser to create SCC's between files.• Created an engaging GUI in WPF, used WCF to connect client and server via asynchronous blocking queue.		
Paraphrase Resource using Tweets	Spring 2019	Python: NLTK, Spacy, PropS
<ul style="list-style-type: none">• Resource created by extracting binary predicates from news tweets reporting same events.• Ranked paraphrase pairs in bins and applied supervised learning to the top bin to achieve 72% accuracy.		
Stock Prediction using Tweets	Spring 2020	Python: NumPy, Pandas, SciKit
<ul style="list-style-type: none">• Compared Regressive learning techniques on feature engineered stock tweets to predict future stock value.		

Skills and Interests

Languages: C++, C#.NET(Visual Studio), C, Python, Shell script, JavaScript(Node.js, Socket.io)

Tools: Azure Cloud, DevOps, Git, SQL Server , Postman, WireShark, nmap,Docker,Heroku.