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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**
- Created a website that tracked and measured user engagement using google insights and WordPress.
- Reduced the management feedback loop to a mere 6 seconds webpage reload using SQL buffer cache.
- Developed and tested 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

Completely Fair Scheduler, Virtual Memory in NachOS   (Fall 2019)   C++, Shell script
- 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 the OS.

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, MeltDown, Spectre Attacks as well as vulnerabilities of Set-UID and environment variables.

Skills and Interests

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