**EDUCATION**

Bachelor of Mathematics University of Maryland, College Park

& Computer Science Minor School of Computer, Mathematical &Natural Sciences

Excepted Grad: Summer 2017

**COMPUTER SKLLS**

Programming Language: C, Java, C++, HTML, R, Python, Perl, Ruby, Ocaml, Prolog

Other: Linux, MATLAB, Assembly, SAS

**RELATED COURSES**

* Object-Orientated Programming Discrete Structure Computational Methods
* Probability Theory Applied Probability and Statistics Computer Systems
* Algorithms Computer Organization and Assembly Languages Data Science
* Advanced Calculus Advanced Linear Algebra

**EXPERIENCE**

**Hughes Network System, EchoStar Company**

Network engineering Intern (Network Infrastructure) May 2015-Aug 2015

* Acknowledged alarms from networks in terms of being aware of causes and impact of issues and troubleshooting
* Configured private networks by using CISCO commands on VPN router
* Managed assigned projects and program components to deliver services in accordance with established objectives
* Designed, setup and configured complex switching environments

**Hughes Network System, EchoStar Company**

Software engineering Intern June 2016-Aug 2016

* Scripted in C using JSON to implement web pages, editing IP addresses, and providing a platform for enterprise customers in transmitting data
* Scripted in Perl based on big databases from network management system and routers, and being able to parse useful data for users
* Developed a CGI app which contained an API that read different type of files having data in JSMN format and fetched data based on given information

**KEY PROJECTS**

* Wrote the guts of a simple shell that supported Boolean operations, pipes, and file redirection with using testing method of makefile
* Used dynamic memory allocation techniques to implement a variable-size hash table using closed addressing with linked list chaining to handle collisions
* Built a WordNet graph using Ruby, reading valid input files and construct structure based on WordNet properties
* Wrote an OCaml module to implement nondeterministic finite automaton and regular expressions
* Implemented a number of functions of Prolog that together were used to find solutions for mazes; logic, recursion and lists were applied

**OTHER EXPERIENCE (IPSEC)**

* Understood IPsec protocol which allows companies to establish communications between multiple locations
* Worked with different vendor platform to build IPsec tunnels between on-premises network and AWS network
* Used AES-128 encryption and SHA-1 authentication methods with pre-defined /pre-shared key to establish IPsec phase one connection; Used AES-128, HMAC and DH groups to establish phase two connection
* Used different symmetric encryption methods such as DES, 3DES and AES as well as asymmetric encryption methods to build multiple tunnels between different routers
* Used ISAKMP and IPsec to debug in finding root causes from users’ configurations
* Understood how main mode of IKE protocol works for phase one negotiation as well as quick mode for phase two
* Used wireshark to capture packets and was able to analyze them