**Avi Sinha**

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**Software Developer / IT Analyst Profile**

Analytical and knowledgeable **Developer** and **IT Analyst** with related education, training, and technical certifications for deploying efficient full-stack SDLC principles and designing secure networks/cloud infrastructures. Working towards Master’s degree.

Southern Methodist University, Dallas, Texas

**Bachelor of Science in Computer Science, Security Specialization** (Aug 2016- May 2019)

*~ Cumulative GPA: 3.65 / Major GPA: 3.85*

**Master of Science in Computer Science, Data Science Specialization** (May 2020)

# Skills/Certifications

IT Certifications: CompTIA Security+, Network+, Cloud+, (CCAP) Cloud Admin Professional, (CSCP) Secure Cloud, Professional, Trained in AWS Cloud, SAP, Microsoft Office Professional (Excel, Word, PowerPoint, Outlook)

Computer Science Skills:

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| --- | --- |
| *Languages:* | **C++, Python, JavaScript**, Ruby**,** Java, SQL(PostgreSQL, MySQL), C, MATLAB |
| *Environments:* | **Git**, **Linux**, Windows, Anaconda, Docker, Test-Driven Development |
| *Networks:* | TCP/IP, VPN, VLAN, DHCP, OSI, IP Routing, Virtualization Software, Switches, Firewalls |

Related coursework: Networks and Data security, Software/Algorithms, Machine Learning, and Database Management.

# Career History

Coordinated development for numerous projects. Lead Agile project teams, assigned tasks, and worked with peers and higher management to meet deadlines. Leveraged variety of programming skills to complete tasks. Authored and presented final projects for peer and faculty review. Tutored peers in best design practices.

**Work Experience:**

* *Deason Institute of Technology - Artificial Intelligence Research Assistant (3/2019- till date)*

Project lead and expert for developing Machine Learning solutions involving network security defense.

* *ReddyIce (Senior Design) (8/2018-5/2019)*

Developed a business intelligent dashboard using QlikView that will be used to forecast and analyze sales for various markets and ice products around the country.

* *Ruby on Rails Developer ORM Technologies (05-08/2018)*

As a Full Stack, Ruby on Rails developer, customized web application interfaces for clients. Made optimal design decisions for the displaying, RSPEC testing and data mining of predictive analytics. Queried data was used to automate marketing and sales decisions.

**Selected Projects (**https://github.com/avirajs):

* *Intrusion Detection for IOT network using Neural Networks (Python):* Analyze network traffic data of IOT networks and created a custom multilayer neural network that is trained, validated and tested for use. Fingerprinting techniques used can be useful for segmenting off the infiltrated parts of the network. This model would be deployed in a variety of business environments that require IOT for either tracking or monitoring of data in various geographic locations.
* *Advanced PDF Search Engine (C/C++):* Devised a command line search engine tool capable of advanced set notation queries and relevancy ranking by TD/IDF algorithm; decoupled storage of inverted indices

**Associations/ Awards:**

* *IEEE:* Member of Institute of Electrical/Electronics (IEEE) Community; various networking in leadership events.
* *AWARDS:* Discovery Scholar / SMU Dean’s Scholar / Recipient of HU Lee Taekwondo National Scholarship.