PRESTON SCOTT

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Experienced multi-discipline engineer seeking an opportunity to solve challenging problems in scientific computing.

Experience

Software Engineer - Noregon Systems, Greensboro, NC	**2018 - Present**
▪ Currently serving as technical lead for cloud IoT solutions – responsibilities include solicitation of requirements, development of software designs, task assignment, and management of production code	**Azure Dev Ops, Git**
▪ Designed and implemented serverless cloud functions to handle ingestion and persistence of telemetry data from IoT devices (> 1.5M messages/day)	**C#, Azure IoT Hub, Azure Serverless Functions**
▪ Developed over-the-air firmware update process for IoT devices using packet transfer and custom 'stop and wait' acknowledgement protocol	
▪ Developed RESTful API and web frontend to monitor incoming IoT data	**C#, ASP.NET**
▪ Designed database schema, stored procedures, and custom indexes to efficiently store and query IoT data	**SQL Server**
▪ Created complex SQL queries and application code to generate reports on IoT devices. Performed ad-hoc SQL queries to mine data for troubleshooting and test purposes	**TSQL, Python, R, Jupyter Notebooks**
Graduate Student - North Carolina State University, Raleigh, NC	**2015 – 2018**
▪ **Graduate courses:** Operating Systems, Computer Architecture, Databases, Algorithm Design, Machine Learning, Data Mining, Object Oriented Programming, Computer Networks, Internet Protocols, Software Engineering	**C++, Python, Ruby**
▪ **Undergraduate courses:** Java, Programming Concepts, C/C++, Discrete Math, Assembly Code, Operating Systems, Data Structures, Automata and Grammar	**Java, C, C++, Assembly**
▪ Developed Python implementations of anomaly detection, community detection, and virus propagation algorithms for analysis of time evolving graphs (NCSU – 2017)	**Python, Matlab**
▪ Developed machine learning model as part of semester long project to predict Major League Baseball team records based on player statistics (NCSU – 2016)	**Python, JMP, Matlab**
Reliability Scientist - RF Micro Devices, Greensboro, NC	**1999 – 2015**
▪ Served in highly technical roles throughout employment, ultimately managing a group of PhD scientists in R&D role	
▪ Performed statistical data mining and analysis on semiconductor manufacturing data	**JMP, Python**
▪ Developed predictive models based on experimental data to assess field reliability of semiconductor components	**Matlab, Reliasoft, JMP**
▪ Utilized a variety of analytical tools to capture data and images on semiconductor products	**Scanning Electron Microscope, Photon Emission Microscope, 3D X-Ray**

Education

▪ Master of Computer Science - NC State University, May 2018	**4.0 GPA (4.0 Scale)**
▪ Post Baccalaureate Certificate – Computer Programming, NC State University, May 2016	**4.0 GPA (4.0 Scale)**
▪ Master of Science – Applied Physics, Texas Tech University	
▪ Bachelor of Science – Physics, Mathematics, King College	