DANIEL HU

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EDUCATION

Purdue University — *West Lafayette, Indiana*
M.S. in Computer Science — August 2019-May 2021
B.S. in Computer Science (GPA: 3.66) — August 2016-May 2020

WORK EXPERIENCE

Capital One — Richmond, Virginia
Software Engineering Intern — *June-August 2019*

- Utilized the PySpark framework to create a matching algorithm to identify potential Capital One customers affected when an external third party data breach occurs.
- Built a contained environment using a variety of AWS services (Lambda, Elastic MapReduce, and S3) to execute the matching of data provided by the external third party (i.e. Equifax) against internal tokenized customer data.
- Reduced data and security vulnerabilities by removing the need for a human to examine sensitive PII.

CME Group (Chicago Mercantile Exchange) — Chicago, Illinois
Software Engineering Intern — *May-August 2018*

- Leveraged the Moto/Boto3 and Pytest frameworks to create a substantial unit test suite to validate CME's Cloud Custodian (open source rules engine for AWS fleet management) policies.
- Implemented new functionality of the CME automation framework in Python to integrate with the Cloudbolt (a hybrid cloud management platform) API to provide a uniform mechanism for automatic provisioning of servers in an on-premise environment.

Purdue University — West Lafayette, Indiana
Undergraduate Teaching Assistant (Digital Literacy) — *January-May 2019*

- This course is a comprehensive introduction to the digital world, providing a high level overview to technologies such as computers, the internet, the cloud, etc. It concentrates on how computing affects students' lives.
- Created and graded homework assignments and exam questions for students.
- Held office hours to help students understand difficult course material.

PROJECTS

Room Occupancy — December 2018
https://github.com/dhu5432/RoomOccupancy

- Given a dataset with features such as humidity, temperature, light, etc. we want to be able to predict whether or not a given office room is occupied.
- Used a variety of machine learning algorithms such as Linear Perceptron, Support Vector Machines, etc. to achieve 98%+ accuracy in Python.

GitStarter — April 2018
https://github.com/dhu5432/GitStarter

- A web application that allows users to "invest" in open source projects on GitHub.
- Utilizes the GitHub API to change the investment value of a project based on level of activity (number of commits, insertions, etc.)

TECHNICAL STRENGTHS

Programming — Java, Python, C, and C++
Tools & Frameworks — Git, Jenkins, AWS (EMR, Lambda, and S3), Spark