

DANIEL HU

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<https://dhu5432.github.io/>

EDUCATION

Purdue University

M.S. in Computer Science

B.S. in Computer Science (GPA: 3.66)

West Lafayette, Indiana

August 2019-May 2021

August 2016-May 2020

WORK EXPERIENCE

Capital One

Software Engineering Intern

Richmond, Virginia

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)

Software Engineering Intern

Chicago, Illinois

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

Undergraduate Teaching Assistant (Digital Literacy)

West Lafayette, Indiana

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

<https://github.com/dhu5432/RoomOccupancy>

December 2018

- 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

<https://github.com/dhu5432/GitStarter>

April 2018

- A web application that allows users to "invest" in Github repositories.
- Utilizes the GitHub API to determine value of a project based on commit activity.
- Balance history and value of repositories can be visually seen through graphs.

TECHNICAL STRENGTHS

Programming

Java, Python, C, and C++

Tools & Frameworks

Git, Jenkins, AWS (EMR, Lambda, and S3), Apache Spark