

DANIEL HU

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EDUCATION

Purdue University

M.S. in Computer Science (GPA: 3.60)

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

West Lafayette, Indiana

August 2019-May 2021

August 2016-May 2020

WORK EXPERIENCE

Purdue University

Graduate Teaching Assistant (Computer Architecture)

West Lafayette, Indiana

August 2020-Present

Microsoft

Software Engineering Intern

Redmond, Washington

May-August 2020

- Created a GraphQL endpoint in C# for the Azure Resource Graph, providing customers with an alternative querying experience.
- Integrated the endpoint with the Azure Resource Manager, allowing customers to modify data related to their Azure resources using GraphQL.
- Cached data from backend requests using a design similar to GraphQL's dataloader pattern.

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.

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.

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.

PROJECTS

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.

PUBLICATIONS

Henry, C., Hu, D. and Bagchi, S. The Effect of Motion on PPG Heart Rate Sensors. IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2020)