

David Tsui

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EXPERIENCE

Bank of New York Mellon: Software Engineer

June 2017 - PRESENT

- Migrated global cash and custody transaction monitoring services to cloud platform; Containerized and deployed Storm, Zookeeper, Elasticsearch, and Kibana services
- Ideated and developed dashboard for health metric analysis of transaction systems
- Redesigned dashboard for Git and Jira ticket tracking to aid with developer efficiency
- Led internal workshops on circuit breakers and containerization patterns

NASA Jet Propulsion Laboratory: Intern Software Engineer

Summer 2016

- Prototyped system modelling web application to handle different UML data formats
- Designed, ideated, and tested UI tool for diagramming and documenting system models for the Europa clipper engineering team

Advanced Data Management Laboratory: Research Student

September 2015 - May 2016

- Built mapping features for indoor location app, sending real-time update on directions to different rooms
- Laid groundwork for mobile application, PittGrub, notifying users to free food on campus (<https://pittgrub.com/>)

LANGUAGES & TECHNOLOGIES

- Python; JavaScript; Java
- Angular 5; Docker; Kubernetes; Spark; Kafka; Elasticsearch; Kibana; Logstash; Sketch

EDUCATION

Georgia Institute of Technology — Computer Science, MS

Expected Graduation - May 2020

University of Pittsburgh — Computer Science, BS

Fall 2013 - Spring 2017

Cumulative GPA: 3.6, Major GPA: 3.8

RELEVANT COURSEWORK

- **Graduate:** Machine Learning; Big Data for Healthcare; Database; Reinforcement Learning
- **Undergraduate:** Algorithms, Quality Assurance, Software Engineering, Data Science, Operating Systems

PROJECTS

Parkinson's Disease Diagnosis (PPMI Dataset)

Predicting Parkinson's disease: a system using Spark to preprocess large volumes of health records and Keras (LSTMs) to diagnose patients on Parkinson's Disease

Google YouTube Tagging (YT8M Dataset) - Kaggle Competition

Predicting youtube videos tags and categories: a system deployed in Google Cloud using convolutional neural networks (CNNs) and recurrent neural networks (LSTMs) to classify multiple author generated tags per Youtube video

PATENT

Lumoq Web and Mobile Reward Shopping App, Summer 2015

- Co-founder, patent-pending (U.S. Application No. 62/015,720)
- Mobile application that provides loyalty reward program using mobile app and NFC
- Partnered with local businesses around Pittsburgh to promote the application rewards

AWARDS

Winner - BNY Mellon Internal Hackathon, Summer 2018

Hubblehub: A dockerfile discovery web app for BNY Mellon's cloud platform; Internal replicant of Dockerhub

Amazon Web Services 1st Place - Steel Hacks, Hackathon, Spring 2017

Preventing Sudden Infant Death Syndrome (SIDS): a system using webcam facial recognition, a phone app and a web application for risk detection and alert notification