NANCY TRINH

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EDUCATION

Georgia Institute of Technology - College of Computing *Aug. 2016 - Dec. 2019*
M.S. in Computer Science with Concentration in Machine Learning, GPA: 3.88

University of Pennsylvania - The Wharton School *Aug. 2011 - May 2015*
B.S. in Economics with Concentration in Statistics, GPA: 3.35
Awarded full-tuition scholarship (Questbridge National College Match)

PROJECTS

Venice: a framework for deploying and managing event stream processing pipelines

- Collaborated remotely in a three-person team to design and implement a framework that provides (1) a default event stream processing pipeline, and (2) a command-line utility to perform common pipeline management tasks. The framework automates tedious configuration and management tasks, freeing developers to focus on building applications.
- Implemented an event producer that simulates bus movements by generating bus coordinates (it can also use real data from the SEPTA bus API). The producer registers the schema with Confluent Schema Registry. The location data is written to an Apache Kafka topic and a Kafka Connect worker pulls the data to a PostgreSQL server. ksqlDB can be used to create streams over the data. The Kafdrop UI can be used to view topics, partitions, consumers, and messages.
- Case study: https://venice-framework.github.io/case-study.html
- Used Python, Docker, and Bash.

Trello Clone
Collaborated with a remote team to create a Trello-like application that allows users to create and edit boards, lists, and cards. Used Ruby on Rails and React.

Image recognition of road signs and traffic lights
Implemented a machine learning model that detects road signs and traffic lights from the German Traffic Sign Detection Benchmark. Achieved performance comparable with state-of-the-art classification techniques. Used Python, OpenCV, and gradient-boosted trees.

Simulated spaceship landings using reinforcement learning
Implemented a reinforcement agent that learns to safely land a simulated spaceship (OpenAI LunarLander-v2) using an approach adapted from Mnih et. al. *Human-level control through deep reinforcement learning, Nature 518, 2015.* Used Python, OpenAI, and neural networks.

WORK EXPERIENCE

Data Scientist, Freewheel (acquired by Comcast) *July 2016 - April 2018*

- Conducted week-ahead impression forecasts and used statistical analysis to inform pricing decisions.
- Automated business processes and reporting using Python.

Advanced Analytics Consultant, ColdLight (acquired by PTC) *June 2015 - Jul 2016*

- Worked on a variety of prediction problems, including video-on-demand rentals and purchases, diagnoses of chronic kidney disease, and hospital readmission risk.

SKILLS

Languages and Technologies: Python, Ruby, JavaScript, React, SQL, Docker, Linux, Bash
Machine Learning Techniques: Random Forests, Gradient-Boosted Trees, Neural Networks
Python Libraries: Numpy, Pandas, SQLAlchemy, Matplotlib, Scikit-Learn, Keras (Tensorflow), OpenCV