Johnson Lam

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Experience

Software Engineer | **Amazon - Alexa Entertainment** | Boston, MA   August 2019 - Present

Building services and infrastructure to automate development and deployment of ASR and NLU models
- Contribute to an orchestration service for automated test and release of ASR entities using *Simple Workflow*. Gives ability to update models daily, prevent accuracy regression, and remove manual work
- Improve team's Operational Excellence by migrating packages to Python3 and BrazilPython3, increasing code coverage, and increasing data health metrics and alarm coverage on our ETL pipeline

Software Engineer | **Soroco** | Boston, MA   January 2018 - May 2019

Developed algorithms for extracting data hierarchies (raw text, data fields, tables) from document scans
- Responsible for end-to-end project life cycle: research, experimentation, evaluation, productionization
- Contributed to custom synthetic data generator for training models using *NumPy*, *OpenCV*, *Pillow*
- Built tools for training, visualization, and image processing with *Scikit-learn*, *Matplotlib*, *PyTorch*
- Presented research papers on various deep learning topics on a bi-weekly basis

Project Manager | **ChatrHealth** | Kolkata, India   July 2017 - August 2017

Launched a mobile app pilot at Narayana Health Hospital to improve efficiency and safety of surgery
- App used standardized checklists/protocols to assist surgical team before, during, and after a procedure
- Worked with surgical team to incorporate mobile application usage into their operating room workflow
- Reduced anesthesia adverse events and unplanned return to surgery by 40% and 32.2%, respectively

Software Engineer Intern | **GE Digital** | Foxborough, MA   May 2016 - August 2016

Developed tools utilizing GE's Predix platform for analyzing and operating IoT devices
- Utilized *Elasticsearch* to create a real time search engine on data streams
- Created application to display job progress across a client manufacturing site to improve floor visibility

Education

Boston University | **M.S. Computer Science**   January 2017 - December 2017
- Related Courses: Data Mining, Data Analytics, Machine Learning, Distributed Systems
- Course Assistant: CS 131 Combinatoric Structures (Fall 2017)
- Advisor: Prof. Babis Tsourakakis

Boston University | **B.A. Computer Science**   September 2013 - December 2016
- Achievements: Top 10% of Data Mining course Kaggle competitions, Dean's List

Projects

Data Mining | **Predicting Amazon Purchases and Rating**   September 2016 - December 2016
- Predict an item's star rating using k-means clustering on sentiment analysis scores of users' comments
- Built a recommender system using collaborative filtering to predict if a user would purchase an item

Publication

ECML-PKDD 2018 | *Risk-Averse Matchings over Uncertain Graph Databases*. Charalampos E. Tsourakakis, Shreyas Sekar, **Johnson Lam**, Liu Yang.

Technical Skills

Languages | Python, Java

Software | NumPy, OpenCV, Pillow, PyTorch, Scikit-image, Scikit-learn, Simple Workflow, Git