Lisa Chua

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EDUCATION

University of San Francisco, San Francisco, CA — June 2020 (Expected)
Masters of Science in Data Science
- Coursework: Machine Learning, Deep Learning (Pytorch), Relational Databases (SQL), Distributed Computing (Spark), Time Series Analysis, Data Visualization, A/B Testing

Georgetown University, Washington, DC — May 2019
Post-Baccalaureate Certificate in Computer Science
- Coursework: Linear Algebra, Multivariate Calculus, Computer Science (C++), Advanced Programming (Java), Data Structures and Algorithms

Tufts University, Medford, MA — May 2014
Bachelors of Arts in Economics and International Relations
- Coursework: Economic Statistics, Econometrics (Linear Regression), Differentiable Calculus

RELEVANT WORK EXPERIENCE

NakedPoppy/ Data Science Intern
October 2019 – Present, San Francisco, CA
- Used natural language processing (spaCy parts of speech tagging, dependency parsing) to extract key aspects from 10,000 Google reviews scraped for 400 products, to allow users to filter reviews on relevant keywords.
- Developed latent Dirichlet allocation and high adjective count models for feature-based opinion mining on product reviews, to be incorporated into product scoring in the recommendation system.
- Implemented a hybrid recommendation algorithm for new users using content-based and collaborative filtering trained on 120,000 implicit feedback events from clickstream data.

Economists Incorporated / Researcher Coordinator
February 2017- May 2018, Washington, DC
- Managed 15 research associates across DC/ San Francisco offices on top of normal research caseload.
- Implemented training programs in Stata, ArcGIS, and conducted performance reviews.

Economists Incorporated / Research Associate
April 2015- May 2018, Washington, DC
- Assisted economists in building quantitative models for high-profile cases concerning antitrust litigation. Focused experience in healthcare mergers, working with Medicare/Medicaid (CMS) inpatient data.
- Performed market definition and diversion ratio analyses for upward pricing pressure and critical loss assessment.
- Utilized Stata, Visual Basic and ArcGIS to produce trial exhibits and market definition maps. Prepared work papers for submitted analyses to ensure accuracy and replicability.

PROJECTS

Predicting Short-term Outcomes in Critically Ill Patients
- Predicted mean arterial pressure and heart rate using XGBoost and LTSM neural networks, ranking top 15% on Kaggle leaderboard with R^2 of 0.92.

Named Entity Recognition using Sliding Window Neural Network
- Built a 5-word sliding window model in Pytorch to predict the named entity of the middle word with 0.91 accuracy.

Machine Learning Algorithms from Scratch
- Implemented core machine learning algorithms from scratch with comparable performance to Scikit-learn modules, including Ridge and Lasso regression, Naïve Bayes, decision trees, random forests, and k-means clustering.

StreamHopper: Streaming Service Recommender App
- Full-stack developer for MVP including front end development in Flask-Bootstrap (HTML, CSS, JS) and continuous integration and deployment on AWS Elastic Beanstalk and CodePipeline. Our team was selected to present to a VC panel.

TECHNICAL SKILLS

- Python (Pandas, NumPy, Scikit-learn, Pytorch, SciPy, NLTK, SpaCy, Gensim, Matplotlib, Seaborn, Flask, Pytest)
- C++, Java, Swift, HTML, Stata
- SQL, Spark, Git, AWS (EC2, S3, Elastic Beanstalk, CodePipeline), Sphinx, APIs, Selenium, Google Analytics