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

RELEVANT WORK EXPERIENCE

NakedPoppy/ San Francisco, CA   October 2019 – Present
Data Science Intern
- <u>Product Recommendation:</u> Improved recommendation system for new customers by incorporating content-based and collaborative filtering trained on implicit feedback events from clickstream data, increasing precision@3 by up to 24%.
- <u>Reviews Aspects:</u> Used natural language processing (parts of speech tagging, dependency parsing) to extract key aspects from Google reviews scraped for 500 products, to allow customers to filter reviews on relevant keywords.
- <u>Opinion Mining Reviews:</u> Implemented feature-based opinion mining on product reviews to assist the scoring of new products, using latent Dirichlet allocation and high adjective count models with an F-1 score of 0.81.
- <u>Market Basket Analysis:</u> Conducted market basket analysis on transaction data to provide customers with "pair with" recommendations and increase engagement.

Economists Incorporated / Washington, DC   April 2015 – May 2018
Lead Researcher
- Managed 15 research associates across DC/ San Francisco offices on top of normal research caseload.
- Implemented training programs in Stata, ArcGIS. Conducted recruiting interviews and performance reviews.

Research Associate
- 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.

PROJECTS

StreamHopper: Streaming Service Recommender App
- Developed and pitched to venture capitalists a minimal viable product that recommends users a specific streaming service each month based on their viewing preferences.
- Designed questionnaire to cluster user data into personas using k-modes. Implemented a content-based recommendation system using similarity measures on plot and cast metadata for each content.
- User interface and front-end development using Flask-Bootstrap (HTML, CSS, JS).

Stylized Image Captioning using LSTM
- Generated humorous and romantic image captions using multi-task training on factored LSTM in Pytorch.

Scikit-Learn Clone
- 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.

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, EMR, Elastic Beanstalk, CodePipeline), ArcGIS, APIs, Selenium, Google Analytics