

SUMMARY

Adaptable, driven to **optimize** and **communicate insights**. Solid **quantitative background** from engineering, **2.5+ years** programming and visualizing/analyzing data for a **fast-paced** semiconductor company.

SKILLS

DATA SCIENCE: Data Visualization (Matplotlib, JMP, Tableau) | Exploratory Data Analysis (EDA) | Machine Learning/Modeling (Linear/Logistic Regression, Ensemble) | Unsupervised Learning (Clustering) | Natural Language Processing (NLP) | Image Recognition | Neural Networks | Deep Learning | Feature Engineering | Data Cleaning | Hypothesis or A/B Testing | Written/Verbal Communication

PROGRAMMING: Python (Pandas, NumPy, SciPy, Statsmodels, Scikit-Learn, TensorFlow/Keras, Spark/PySpark, NLTK, BeautifulSoup4, Matplotlib, Seaborn) | Jupyter Notebook/Lab | Linux/Unix | Git (GitHub) | MATLAB | Java | Agile Frameworks | Project Management | Algorithms and Data Structures

DATABASE: SQL (MySQL, PostgreSQL) | MongoDB

WEB DEVELOPMENT: Amazon Web Services (AWS EC2) | HTML/CSS | Docker | Flask

DATA SCIENCE PROJECTS

Between the Lines of Tripadvisor Hotel Reviews (github.com/chelseanbr/between-the-lines-hotels): Scraped 1.2 million reviews, performed NLP, trained and evaluated regression, ensemble, deep neural network models for sentiment classification; deployed final CNN-LSTM neural network: tinyurl.com/rating-predictor.

Featured Tech: AWS EC2 | Docker | Flask, | TensorFlow/Keras | NLTK | Scikit-Learn | BeautifulSoup4

What's In My Makeup Bag? (github.com/chelseanbr/Whats-In-My-Makeup-Bag):

Analyzed over 100,000 harmful cosmetics with Pandas, Matplotlib/Seaborn, performed hypothesis testing; presented EDA findings and statistically significant differences across similar companies of interest.

Detecting Fraud (Slides: tinyurl.com/fraud-detection): Cooperated in team of 4, engineered features, tuned parameters, assessed 7 fraud classifiers on precision, ROC AUC; deployed best random forest model to web app

EXPERIENCE

Product Engineer (New Product Introduction) – Xilinx, San Jose, CA Sep 2017 – Mar 2020

- Initiated and implemented new Python scripts, improved upon existing analysis tools; managed project and exceeded user requirements, optimized data summary process from 2 days to minutes
- Leveraged Six Sigma, visualized and assessed silicon measurements with JMP statistical software; collaborated cross-functionally and handled 3 product families from first silicon to production
- Coordinated with project managers, executed experiments, spearheaded data collection, translated data into insights, and enabled engineers to take action; delivered over 10 new products on-time to internal/external customers and achieved high yield increased from less than 50% to over 90%

Hardware Engineering Intern – dTOOR, Seattle, WA Dec 2016 – Jun 2017

- Created product/system requirements documents in startup team of 5, assembled product on tight schedule, managed component library; launched functional circular smartphone prototype in 6 months
- Designed and implemented PCB and circular UI, integrated touch display, accelerometer, wireless charging; built and introduced prototype to over hundreds of people at UW research symposium

EDUCATION

Galvanize, San Francisco, CA – **Data Science Immersive** Mar 2020 – Jun 2020

University of Washington (UW), Seattle, WA – **B.S. Electrical Engineering** Sep 2013 – Jun 2017

- Relevant courses: Computer Programming (Java), Scientific Computing (MATLAB), Probability and Statistics for Engineers, Advanced Multivariable Calculus, Linear Algebra, Technical Communication
- Organized events for 70+ people, trained officers in Society of Asian Scientists and Engineers '14-'16