

SUMMARY

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

SKILLS

DATA SCIENCE: Data Analysis/Visualization (Matplotlib, JMP statistical software, Tableau, Excel, PowerPoint) | Exploratory Data Analysis (EDA) | Machine Learning/Modeling (Linear/Logistic Regression, Ensemble) | Unsupervised Learning (Clustering) | Natural Language Processing (NLP) | Neural Networks | Deep Learning | Feature Engineering | Data Cleaning | Hypothesis or A/B Testing | Design of Experiments (DOE)

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

DATABASE: SQL (MySQL, PostgreSQL) | MongoDB

WEB TECHNOLOGIES: Amazon Web Services (AWS EC2, S3) | HTML/CSS | Docker | Flask

SOFT SKILLS: Written/Verbal Communication | Problem Solving | Team Player | Project Management

DATA SCIENCE PROJECTS

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

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

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

Cleaned data, analyzed 100,000 harmful cosmetics with **Pandas**, **Matplotlib**, **Seaborn**; conducted **hypothesis testing** across companies of interest, **presented EDA and findings** to data science peers and instructors.

Detecting Fraud (Slides: tinyurl.com/fraud-detection): Cooperated in **team of 4**, performed **EDA**, **feature engineering** and **hyperparameter tuning**; took charge of modeling, built and assessed 7 classifiers on 5-fold cross-validation precision, ROC AUC; **deployed best model** (random forest) for **real-time fraud detection**.

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 expectations, **optimized** data summary process from **2 days to minutes**
- Wrangled**, **visualized** and **assessed** millions of silicon measurements with **JMP**; **collaborated cross-functionally**, **communicated** and eliminated issues found, **handled and released 3 product lines**
- Coordinated with project managers, arranged data collection with clear instructions to technicians, took initiative and **delivered over 10 new products on-time or early** to internal/external customers
- Executed creative experiments (DOE) and **translated data into insights** to drive key decisions for yield improvement; achieved high yield increased from **less than 50% to over 90%**

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

- Created product 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; **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