

# Jianchao (Jesse) Yang

hello@yj.c.me · (857) 302-8393 · ktmud

Experienced Front End / Data Science Engineer obsessed with crafting powerful, sensible, user-centric data products

## EXPERIENCE

**Data Scientist II** - Zillow Group, Seattle, WA Mar 2019 - Present

- **Data Visualization** built a consolidated data mart for all major metrics of the New Construction business, designed and developed a comprehensive Baseline Performance dashboard; administered a pilot trial for Redash and Superset.
- **Causal Inference** developed an end-to-end multilabel image classifier with 96% accuracy to support the analysis of causal relationship between image/listing quality and search CTR, identified key areas of improvements that drove future research.
- **Search Ranking** implemented, analyzed and A/B tested different data imputation strategies to address bias in home recommendation algorithms, boosted discoverability of new construction homes by 12%.
- **3rd-party Data Ingestion** created Java-based Hive UDFs and Airflow jobs to ingest terabytes of Google Ad Manager data every day, engineered foundational aggregation tables, assembled accompanying diagnostic and monitoring dashboards.

**Data Scientist Intern** - Zillow Group, Seattle, WA May 2018 - Aug 2018

- Migrated the backend of a client-facing data product from on-premise MS SQL/R scripts to Airflow DAGs running on Hive, Spark, and AWS EMR and S3 Data Lake, reduced daily job runtime from 8 hours to 30 minutes.
- Collaborated with PMs to define KPIs for Rental Management Platform, designed and built a Tableau dashboard that incorporated 12 user and listing attributes from 5 different sources, as both filters and segmentation dimensions.

**Quantitative Developer Co-op** - GMO LLC, Boston, MA Jan 2018 - Apr 2018

- Created reusable and flexible MATLAB modules for sophisticated financial data visualization
- Refactored code, consolidated ETL pipelines, streamlined job automation workflows for financial forecasting models, improved usability and stability of Asset Allocation portfolio management tools

**Research Assistant** - Boston Area Research Initiative, Northeastern University Jan 2017 - Dec 2018

- Collected, processed, and conducted geographical and temporal analyses on census and government administrative datasets
- Created an interactive map with Vue.js and Leaflet.js to facilitate data exploration
- Implemented and designed methods to evaluate a novel iterative school assignment algorithm for Boston Public Schools

**Client Side Developer** - Booking.com B.V., Amsterdam, Netherlands Sep 2014 - Aug 2016

- Executed 100+ A/B testing experiments aimed at optimizing booking conversions on both desktop and mobile web
- Led usability testing sessions, gathering and translating user comments into testable experiment ideas

**Full Stack Software Engineer (Part-time)** - Curiosity China, Beijing, China Dec 2012 - May 2014

- Architected and developed a CRM system with PostgreSQL, Node.js, Backbone.js, and visualizations built on NVD3

**Front End Engineer** - Douban Inc. (Sequoia-backed Startup), Beijing, China Nov 2011 - Mar 2014

**Front End Engineer** - Taobao.com, Alibaba Group, Hangzhou, China Jun 2010 - Oct 2011

## EDUCATION

**Northeastern University**, Khoury College of Computer Sciences, Boston, MA 2016 - 2018  
Master of Science in Data Science

**Sichuan Agricultural University**, Ya'an, China 2006 - 2010  
Bachelor of Engineering in Wood Science and Engineering (Interior and Furniture Design)

## SKILLS

**Languages** JavaScript, HTML, CSS/Sass/Less, Node.js, Python, R, SQL, MySQL, MATLAB, PHP, JSON, XML, Bash, Java, C  
**Frameworks** React, Vue, Backbone, jQuery, GraphQL, Flask, SQLAlchemy, Next.js, Webpack, Gulp.js, Pandas, Scikit-learn, TidyR  
**Tools** Linux, Git, Airflow, Docker, Hive, Spark, Presto, Redis, MongoDB, AWS EC2, AWS S3, AWS EMR, AWS SageMaker  
**Data Vis** D3.js, Leaflet.js, Vega, Mapbox, Google Maps, Matplotlib, Ggplot, Plotly, NetworkX, Tableau, Mode, Vega, Sigma.js

## OTHER ACHIEVEMENTS

**Speaker, PWA in Small Steps** - PWA Dev Summit 2016, Amsterdam, NL Jun 2016

**Translator, Chaos Monkey** - translated the 500-page book from English to Chinese 2016 - 2018

**Open Source Contributor** - contributing to various open source projects, including Redash, doWhy, etc. 2010 - Present