# Weston Jackson

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http://www.westonjackson.github.io


## Education

- **Columbia University** — New York, NY
  M.S. in Computer Science, Machine Learning, GPA: 4.0 — *October 2019*
  B.A. in Computer Science, GPA: 4.0 — *May 2017*

## Technical Skills

- **Languages**: Python, Java, C++, C, Go, PHP, Scala, Javascript
- **Development**: Jupyter Notebook, PyCharm, Vim, Intellij, Sublime, Eclipse
- **Technologies**: SQL Server, S3, Snowflake, Kafka, MongoDB, Docker, Kubernetes, ZooKeeper

## Experience

- **Google** — New York, NY
  *Senior Software Engineer - Sellside Optimization* — *June 2021 - Present*
  - Designed algorithms that greatly increased publisher monetization on mobile app inventory.
  - Rewrote and simplified the mobile app sellside auction that generates $10 billion for publishers annually.
  - Redesigned Google Ad Manager and Google AdMob mediation chain serving infrastructure.

- **Citadel** — Singapore / New York, NY
  *Quant Developer - Commodities* — *September 2019 - May 2021*
  - Created the technology platforms for teams trading Financial Transmission Rights (US), Distillates (US), and Crude and Refined Products (Asia).
  - Worked closely with Portfolio Managers and Quantitative Researchers to create data pipelines, prediction algorithms, and web applications for generating alpha.
  - Led the tech buildout that enabled the FTR team to analyze, model, and participate in MISO/PJM auctions.
  - Built the ship-tracking platform and designed the vessel prediction algorithms for Global Freight.

- **Xandr** — New York, NY
  *Software Engineer - Buyside Optimization* — *July 2017 - August 2019*
  - Developed budgeting and valuation algorithms for Xandr's demand-side platform.
  - Designed machine learning algorithms for post-click and post-view cost-per-acquisition (CPA) optimization.
  - Scaled Python and Java streaming applications to optimize millions of dollars of daily ad spend.
  - Improved and maintained the real-time programmatic advertising infrastructure written in C.

- **AppNexus** — New York, NY
  *Software Engineering Intern - Data Platform* — *May 2016 - August 2016*
  - Created a standalone Scala application that automated a time-consuming data recovery process.
  - Improved the data platform's job scheduler by creating the API for ad hoc job processing.

## Projects

- **Approximate Near Neighbor Search under $\ell_\infty$** — *May 2019*
  - Survey on data structures for Approximate Near Neighbor (ANN) search in $\ell_\infty$ normed spaces.
  - Proposed two original data structures for ANN search that have good space/time bounds in low-dimensions.

- **Deep Learning for Network Traffic Classification** — *December 2018*
  - Predicted Server Name Identification (SNI) from HTTPS features using deep learning.
  - Compared performance of Random Forest, CNN, RNN, and ensemble methods.

- **2-Way $k$-Means: A Model for Microbiome Samples** — *August 2017*
  - Clustering research with Professor Itsik Pe'er for the Human Microbiome Project.
  - Paper presentation at KDD 2017 and published in the Journal of Healthcare Engineering, vol. 2017.