Weston Jackson

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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, Scala, Javascript
- **AI & Machine Learning**: TensorFlow, Predictive Modeling, ML Inference
- **Technologies**: SQL, Snowflake, Kafka, MongoDB, Docker, Kubernetes

Experience

- **Google** — New York, NY
  Staff Software Engineer - Ads — *June 2021 - Present*
  - Proposed, designed, and implemented Google Ad Manager, AdSense, and AdMob optimizations that generated 100M in incremental publisher revenue.
  - Led an engineering team to launch an ML-driven throttling model using TensorFlow that saved 16 SWE of resources while maintaining 99.8% of revenue.
  - Technical lead on display and video auction unification project that fixed systemic gaps in behavior, simplified serving infrastructure, and increased publisher revenue.
  - Established subject matter expert on Google Ad Manager, AdSense, and AdMob auctions across many high priority projects.

- **Citadel** — Singapore / New York, NY
  Quant Developer - Commodities — *September 2019 - May 2021*
  - Created the technology platforms for teams trading Financial Transmission Rights (FTR), Distillates, and Crude and Refined Products.
  - 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 and PJM auctions.
  - Built the ship-tracking platform and designed the vessel prediction algorithms for Global Freight.

- **Xandr** — New York, NY
  Software Engineer - Ads — *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.

Projects

- **Approximate Near Neighbor Search under ℓ_∞** — *May 2019*
  - Survey on data structures for Approximate Near Neighbor (ANN) search in ℓ_∞ 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.