Weston Jackson
weston.j.jackson@gmail.com • https://westonjackson.github.io

EDUCATION

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

Awards and Honors
Graduated *summa cum laude* — May 2017
Awarded Computer Science Department cash prize for academic excellence — April 2017
Junior Phi Beta Kappa inductee — December 2016

TECHNICAL SKILLS

Languages: Python, Java, C, C++, Go, PHP, Scala, Javascript, HTML/CSS
Development Tools: Vim, Intellij, Sublime, Jupyter Notebook, PyCharm, Xcode, Eclipse
Technologies: SQL Server, Vertica, Kafka, Docker, Kubernetes, ZooKeeper, Splunk, S3

EXPERIENCE

Citadel — September 2019 – Present
Quant Developer - Commodities
• Worked with commodities investment professionals, analysts, and quant researchers to build out the software for the Financial Transmission Rights (FTRs) trading desk.
• Developed software in Python for fundamental analysis and modeling of the US electrical power grid.
• Designed the data pipeline (SQL Server, Kafka, S3) and created visualizations (Python Flask + Plotly Dash).

Xandr — July 2017 – August 2019
Software Engineer - Optimization
• Led development of budgeting and valuation mechanisms for Xandr's demand-side platform.
• Developed machine learning applications 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.

Department of Computer Science, Columbia University — January – May 2017
Teaching Assistant
• TA for Analysis of Algorithms I, an introduction to the design and analysis of efficient algorithms.
• Held office hours, helped students with homework via Piazza, graded assignments, and proctored exams.

AppNexus — May – August 2016
Software Engineering Intern
• 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 l-infinity — March - May 2019
• Final project on data structures for approximate near neighbor search in l-infinity normed spaces.
• Proposed two original data structures for this problem that have good space/time bounds in low-dimensions.

Deep Learning for Network Traffic Classification — October - 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 — September 2016 - 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.

PUBLICATIONS

• Weston J. Jackson, Ipsita Agarwal, and Itsik Pe'er. "2-Way k-Means as a Model for Microbiome Samples." *Journal of Healthcare Engineering*, vol. 2017, Article ID 5284145, 7 pages, 2017. doi:10.1155/2017/5284145.