

Weston Jackson

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EDUCATION

Columbia University
B.A. in Computer Science
GPA: 3.99/4.00

New York, NY
May 2017

Research Interests: Machine learning, applied machine learning, artificial intelligence, optimization, algorithms and complexity, distributed systems.

PROFESSIONAL EXPERIENCE

AppNexus

Software Engineer

New York, NY
July 2017 – Present

- Engineered solutions for buy-side budget, allocation, and valuation on the bid-logic optimization team.
- Worked with data science to develop the allocation mechanism for ad-buying optimization.
- Developed, scaled, and maintained software packages for Appnexus's real-time ad-exchange platform.

AppNexus

Software Engineering Intern

New York, NY
May 2016 – August 2016

- Created a standalone Scala application (RecoverData) that automated a time-consuming data recovery process.
- Improved the data platform's job scheduler by writing the API call for ad hoc job processing.
- Integrated RecoverData into the data platform's Python-Flask web framework using said ad hoc functionality.

Goldsmith & Co.

Software Development Intern

New York, NY
June 2015 – Dec 2015

- Created an application that automated the company's weekly status reports.
- Developed a Java software package that used Selenium API to scrape LinkedIn profile information from Google.
- Implemented additions to the company's Salesforce platform (Apex classes, triggers, and Visualforce pages).

RESEARCH EXPERIENCE

Department of Computer Science, Columbia University

Research Assistant

New York, NY
August 2016 - Present

- Worked under Professor Itsik Pe'er on machine learning research pertaining to the Human Microbiome Project.
- Modified and implemented clustering algorithms to characterize a distribution of bacterial samples.
- Paper presentation at KDD 2017 and published in the Journal of Healthcare Engineering, vol. 2017.

Center for Computational Learning Systems, Columbia University

Research Assistant

New York, NY
January 2017 – May 2017

- Created a proposal to approach the problem of alarm fatigue from the perspective of machine learning.
- Implemented machine learning algorithms to predict nuisance alarms in hospitals from physiological data.

TEACHING EXPERIENCE

Department of Computer Science, Columbia University

Teaching Assistant

New York, NY
January 2017 – May 2017

- TA for "Analysis of Algorithms I" (CSOR4321): An introduction to the design and analysis of efficient algorithms.
- Held office hours, helped students with homework via Piazza, graded assignments, and proctored exams.

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.

PRESENTATIONS

- Jackson, Weston J. "2-Way k-Means as a Model for Microbiome Samples." Paper presentation at KDD 2017, *Big Data Analytics-As-A-Service: Architecture, Algorithms, and Applications in Health Informatics*. Halifax, Nova Scotia.

FINAL PROJECTS

First-Order Optimization Methods

April 2017

- Survey on the properties of first-order methods, including naive and accelerated gradient descent, mirror descent, and stochastic gradient descent algorithms.

Faster Linear Programming

May 2017

- Survey on methods for fast linear programming focusing predominantly on the evolution of path-finding and inverse matrix maintenance methods.

TECHNICAL SKILLS

Languages:

Java, Python, C, C++, Scala, SQL

Operating Systems:

Mac OS, UNIX, Linux

Development Tools:

Vim, IntelliJ, Sublime, Eclipse, Xcode

Big Data Technologies:

Vertica, MySQL, Kafka, Hadoop

AWARDS AND HONORS

Summa Cum Laude, Columbia University

May 2017

- Awarded to five percent of the senior class.

Computer Science Department Award, Columbia University

April 2017

- A cash prize awarded to a single degree candidate for scholastic achievements as a computer science major.

Certificate of Academic Excellence, Columbia University

April 2017

- Awarded to graduating computer science majors who have an overall GPA in the top ten percent.

Junior Phi Beta Kappa, Columbia University

December 2016

- Awarded to two percent of the senior class based on academic achievement and intellectual promise.

Dean's List, Columbia University

All Semesters

- Awarded to students who have earned a minimum GPA of 3.6 in twelve or more points of credit.

LANGUAGES

- English (Native)

- French (Basic)