Nathaniel M. Wilson M.S. Computer Science

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Languages

Advanced: Java, Python, C, Bash; **Proficient**: C++, JavaScript, HTML/CSS; **Familiar**: x86, ARM

Projects

- ML model to predict speech rhythm from text, written with both PyTorch and scikit-learn.
- Reddit comment analysis using Hadoop.
- NOAA Weather data analysis using Spark.
- BitTorrent client, written in Java.
- Zero hop DHT distributed file system, written in Java.
- Fault tolerant, strongly consistent data replication service, built with Spring, written in Java.
- Distributed chat server, using UDP packets, written in Java.
- ARMv4 assembly language emulator, with interactive execution mode, written in C.
- Unix shell, with input and output redirection functionality, written in C.
- Unix heap manager module, written in C.
- Search autocomplete module, written in Java.
- Burrows-Wheeler compression module, compatible with any Unix file, written in Java.

Education

University of San Francisco, Master of Science in Computer Science, *San Francisco, CA* 8/17 – 5/19

- GPA: 3.97
- Scholarship: MSCS Merit Scholarship
- Coursework: Data Visualization, Distributed Software Development, Big Data, Principles of Software Development, Systems Foundations, Algorithms, Machine Learning
- Teaching Assistant Positions: Algorithms, Network Programming

Princeton University, courses taken while working, *Princeton, NJ* 1/16 – 1/17

- Coursework: Introduction to Computer Science, Linear Algebra, Algorithms and Data Structures, Introduction to Programming Systems

Colorado College, Bachelors in Neuroscience, *Colorado Springs, CO* 8/09 – 5/13

Experience

Software Engineer Intern, Optimizely, *San Francisco, CA* 6/18 – 9/18

- Built flaky test dashboard, to ingest, analyze, and visualize company-wide software test data.
- Created an ML phrase recommender feature for company website. Won 2nd place in Hack Week.

Research Assistant, Neuroscience of Cognitive Control Lab, *Princeton University, NJ* 6/16 – 5/17

- Developed a library of network visualization functions for a cognitive modelling Python package.
- Configured and maintained Jenkins based CI/CD pipeline for the small software team.

Data Curator, Princeton Neuroscience Inst. - Intel Labs Collaboration, *Princeton University, NJ* 1/15 – 5/17

- Built and maintained a large Linux based repository for fMRI datasets.
- Automated file anonymization, dataset restructuring, file conversion, and data transfer using Bash, Python, and Matlab scripts.

Lab Manager, Turk-Browne Cognitive Neuroscience Lab, *Princeton University, NJ* 6/14 – 9/15

- Designed, built and conducted experiments investigating interactions between memory and sleep.
- Built, maintained, and updated lab and conference websites using Wordpress.