

John H. Williamson IV

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Skills

Programming Languages: C/C++, Java, HTML/CSS/JavaScript, Python(Django), MIPS Assembly Language

Platforms: Windows, iOS/Mac OS, Linux, Android, Git

Looking into: Angular, Node.js, MongoDB, Express.js, API programming, REST, JSON, webhooks, Gulp, SASS

Academic Portfolio / Events

- **Parallel Programming** - worked with CUDA, MPI, Pthreads, and OpenMP to parallelize irregular serial algorithms such as fractal computation, Traveling Salesman Problem, and Binary Search Tree operations
- **Computer Architecture** - recreated an 8-stage pipelined MIPS processor simulator using C++. Implementation included a disassembler, forwarding paths, caching system, and a branch predictor
- **Internet Software Development** - implemented a web application written with the Django web framework that allows users to find/create volunteering opportunities
- **Combinatorics** - Team based research project on $n \times m$ λ -Edge component connectivity
- **Events:** GA + IBM Hackathon participant - created a morale boosting webhook bot using Watson Workspace and Node.js

Education

Texas State University

San Marcos, Texas

Bachelor of Science in Computer Science, Minor in Mathematics GPA: 3.13

Graduated: December 2016

Honors: Dean's List: Spring 2016

Advanced Electives: Parallel Programming, Combinatorics, Human Factors (Eye Tracking), Internet Software Development, Computer Architecture, Recommender Systems, Linear Algebra, Discrete Mathematics I/II

Lone Star College System

Kingwood, Texas

Attended August 2011 - June 2013

Employment

Texas State University,

San Marcos, Texas

Mathematics Tutor, September 2015 - December 2016

- Explain mathematical principles, and key concepts in easy-to-understand terms
- Conduct small group or one-on-one tutoring, using a variety of examples
- Help students develop positive study habits and study skills
- Courses tutored include from Pre-Algebra, Algebra, Calculus I/II, Discrete Mathematics, Linear Algebra, and Combinatorics
- Troubleshoot basic computer interface and printer issues