

Matthew Dutson

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Education

University of Wisconsin-Madison

MS/PhD in Computer Science

- Interests: Computer vision, graphics, machine learning

Madison, Wisconsin

Fall 2018 - Present

University of Utah

Honors Bachelor of Science in Physics

- Minors: Computer science, mathematics
- Magnum cum laude
- Thesis: Reconstruction of Cosmic Ray Geometry Using Cherenkov Backscattering (bit.ly/2QovjDi)

Salt Lake City, Utah

Fall 2013 - Spring 2018

Coursework and Languages

Selected Coursework: Algorithms, software engineering, scientific computing, artificial intelligence, machine learning, linear algebra, ODEs, PDEs, statistics

Most Experience: C++, Rust, Java, Python, LaTeX

Some Experience: C, C#, Perl, SQL, UNIX

Work Experience

UW-Madison Computer Sciences

Graduate Research Assistant

- Collaborator on Hustle - a scalable replacement for SQLite written in Rust.
- Wrote a framework to generate synthetic images of biological fiber networks.

Madison, Wisconsin

Fall 2018 - Present

University of Utah Physics & Astronomy

Undergraduate Research Assistant

- Operated fluorescence telescopes at the Telescope Array observatory.
- Addressed unexpected on-site technical problems.

Salt Lake City, Utah

Spring 2016 - Summer 2018

University of Utah School of Computing

Teaching Assistant

- Course: CS 2100 - Discrete Mathematics
- Instructor: Bei Wang
- Responsibilities included leading weekly discussions and creating homework solutions.

Salt Lake City, Utah

Fall 2017

IM Flash Technologies**Lehi, Utah**

Process Software Intern - Second Year

Summer 2017

- Developed Perl automation software to improve efficiency of defect sourcing.
- Participated in the sourcing of a high-impact photolithography defect.
- Modified existing software to reduce test time estimation errors by 97%.

Process Software Intern - First Year

Summer 2016

- Developed a C++ computer vision application to detect robotic malfunctions.
- Detected 95% of malfunctions, exceeding 60% target.
- Applied knowledge of optics to optimally configure camera and lighting.