

## EDUCATION

### University of Wisconsin - Madison

2016

Bachelors of Science in Mathematics & Computer Science

#### Graduate coursework

Mathematics: Nonlinear Optimization; Computational Mathematics II; Real Analysis; Algebraic Topology  
Computer Science: Advanced Machine Learning; Advanced Algorithms; Computer Vision; Computational Complexity

#### Undergraduate coursework

Mathematics: Mathematical Logic; Topology; Abstract Algebra; Real Analysis I & II; Combinatorics;  
Probability Theory; Linear Algebra; Differential Equations; Discrete Mathematics  
Computer Science: Computer Networks; Algorithms; Computer Architecture; Artificial Intelligence; Compilers;  
Operating Systems; Cryptography; Data Structures; Machine Organization; Digital Systems

Member of the UW Math Club, the Hub, the Undergraduate Projects Laboratory, and Badger Entrepreneurs.

## PROJECTS

<b>Nonlinear Optimization Library</b>	MATLAB library of various nonlinear optimization algorithms. (2015)
<b>ML/Signal Processing Library</b>	MATLAB library of machine learning/signal processing algorithms. (2016)
<b>Computer Vision Applications</b>	A collection of MATLAB computer vision applications. (2016)
<b>Topological Data Analysis</b>	Researching uses of persistent homology in probability models. (in progress)
<b>Deep Autonomous Driving</b>	Researching different deep reinforcement learning architectures for the planning problem in autonomous driving systems. (in progress)
<b>Python ML Library</b>	Python library of interesting machine learning systems/algorithms, sourced from textbooks (PRML, ESL, MLPP, UML) and research papers. (ongoing)
<b>C++ Algorithms Library</b>	C++ library of textbook algorithms (CLRS, K&T, DPV, TAOCP.) (ongoing)
<b>Big Solution Manual</b>	Compiling rigorous solutions to problems from many of the canonical mathematics and computer science graduate-level textbooks. (ongoing)
<b>Flexy</b>	Fitness-oriented social network with native smartphone meet-up app. (hiatus)
<b>MeetSnap</b>	Contact information sharing application using proximity name broadcasting and phone-knocking information transfers via Bluetooth Low Energy. (hiatus)

For more information on these projects and many others, visit my personal website: [clarkzinzow.me](http://clarkzinzow.me)

## EXPERIENCE

### Benefit Concepts, Inc.

January 2016 - Present

Technical Consultant/Web Developer

Whitewater, WI

- Provided consultation on HR/payroll software systems, cloud services, and computer security.
- Set up and maintained company's encrypted e-mail system via Microsoft Azure RMS.
- Created a persistent parallax [company website](http://companywebsite) using a custom Bootstrap-Material design hybrid css framework.

### 100State/100Health

July 2014 - January 2016

Software Engineer/Web Application Developer

Madison, WI

- Worked on software/web app development projects focused on health IT and the state government.
- Learned how to use agile software development frameworks for managing product development.
- Created applications using modern technologies such as: AngularJS; Node.js; MEAN stack; continuous integration.
- Learned many modern software development practices from former Epic Systems software engineers.
- Developed complex algorithms tailored for resource-constrained computing environments.

### Division of Information Technology at UW-Madison

June 2014 - September 2014

Web Developer

Madison, WI

- Created websites, WordPress plugins/themes, and provided website maintenance for UW-Madison departments.
- Completed projects using: WAMP/MAMP stack; PHP; JavaScript; jQuery; SQL; many PHP/JavaScript frameworks.
- Learned test-driven development, source control, issue tracking, and good programming practices.

## TECHNICAL SKILLS

**Languages:** Java; C++; C; Python; MATLAB; JavaScript    **Technologies:** Git; Eclipse; Visual Studio; PyCharm