MATTHEW RYAN WATTS

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# ABOUT ME

Current computer science major with a passion for innovative problem solving. Proven to be a responsible and dedicated person with the ability to learn new concepts quickly. Aiming to bring these qualities to an internship role at your company.

# EDUCATION

## B.S. Computer Science | Anticipated May 2019 | UW-Milwaukee | GPA: 4.0

* Learning MIPS architecture and assembly programming language
* Developed an internal combustion engine analysis and training tool with intuitive user interface using MATLAB
* Designed / prototyped a portable lock for a Master Lock sponsored project. 3D printed components from ProE models

## Master of Business Administration | Investment Management | June 2012 | UW-MILWAUKEE

Bachelor of Business Administration | Finance | June 2010 | UW-MILWAUKEE

# WORK EXPERIENCE

## engineering intern, systems architect | rockwell automation | may 2017 – present

* Developing and architecting a full stack application to be used in manufacturing for energy analytics
* Angular 4 frontend, Node.js backend, MongoDB storage
* Built an API for use with a voice assistant using Amazon Web Services Lambda, Azure Web Applications, and Socket.io
* Communicating with automation hardware using the Common Industrial Protocol (CIP)
* Testing and improving network crawling software used to discover Ethernet devices and retrieve related information

## Engineering Co-op | Briggs & Stratton | November 2016 – may 2017

* Developed and implemented an integrated information delivery / retrieval system
* HTML 5 / CSS 3 / JavaScript web application using AngularJS framework
* PHP APIs to store and deliver relevant data / MySQL database storage
* Apache webserver
* Python 3 scripting on Raspberry Pis to display real-time digital standard work instructions
* Visual Basic to automate document creation

# PERSONAL PROJECTS

## 7 language gauntlet | September 2017 - PRESENT

* Learning and exploring 7 different programming languages in parallel
* Comparing fundamentals, implementation of data structures & algorithms, and standard libraries
* <https://github.com/mrwatts88/CodeExercises>

## Target Interception Simulation | mAY 2017 – August 2017

* Simulated the interception of a moving target utilizing both algebraic and numeric methods
* 3D modeled mechanism in Pro Engineer
* C++ with OpenCV library for object tracking and user control
* Arduino controlled mechanism
* MATLAB for modeling kinematics, performing calculations, and plotting data

# ADDITIONAL SKILLSETS

* Java, C#, Microsoft SQL Server