



# Alec Yu

## Software Engineer



N54W14367 Vera Lane  
Menomonee Falls, WI 53051



414-915-9858



github.com/alecyuverymuch



alecxisxhere@gmail.com

## Skills

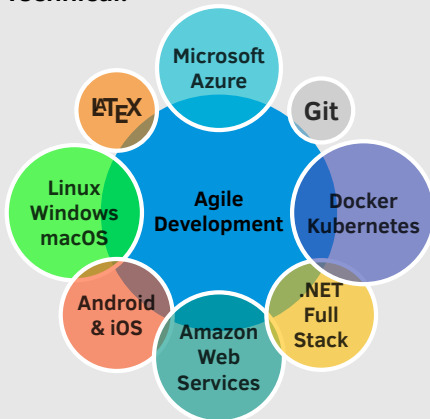
### Development:

C#, Java, PowerShell

Python, SQL, Matlab

GO, Javascript, C

### Technical:



### Relevant Classes:

- CS 354 - Machine Organized Programming
- CS 367 - Data Structures
- CS 435 - Cryptography
- CS 524 - Optimization
- CS 532 - Theory of Pattern Recognition
- CS 536 - Compilers
- CS 540 - Artificial Intelligence
- CS 564 - Database Management Systems
- CS 577 - Algorithms
- ENGR 601 - Internet of Things Lab

### Languages:

- English: Native Speaker
- Mandarin: Conversationally Fluent

## Education

**University of Wisconsin - Madison**  
*College of Letters and Sciences*  
 Bachelor's in Computer Science  
 Minor in Mathematics

Madison, WI  
 Aug. 2014 - May. 2018  
 GPA: 3.24

## Experience

**Johnson Controls Inc.**  
*Software Engineer*

Milwaukee, WI  
 May. 2017 - Now

### *Advanced Development (Internship) — Central Plant Optimization:*

- Learned under senior developers to acquire knowledge in collaborative software product development such as the Agile Development workflow and writing maintainable, peer-reviewed code.
- Contributed to an ASP.NET Web Application running a model-predictive control software for energy plant management and optimization.
- Established a small-scale demo environment for marketing use.

### *Advanced Development — Metasys Modernization:*

- Executed a Proof of Concept project involving redesigning a monolithic legacy product into a micro-services architecture.
- Containerized third-party services with Docker/Kubernetes.
- Implemented gRPC and REST APIs for communicating time series data from the DAL to other containerized services.
- Developed PowerShell scripts for latency/load testing the APIs, DAL, and micro-services to document results.

### *Advanced Development — Variable Refrigerant Flow Calculation Platform:*

- Developed a cloud-based data platform for a model-predictive control application managing HVAC systems with Microsoft Azure.
- Utilizing multiple Azure resources, deployed a scalable cloud hosted platform for storing customer site models, managing equipment data, and running optimization algorithms.
- Maintained API data services in the ASP.NET Web Application UI.

### *Johnson Controls - Hitachi — Air Cloud Pro/Home*

- Coordinated with overseas development teams in China, Japan, and India to launch a collaboration project.
- Engineered an AWS hosted IoT Hub for a cross-platform application which monitors and controls HVAC systems.
- Implemented data collection and streaming services that leverage resources from AWS such as Fargate, Kafka, Kinesis, and Lambda.

## Projects

### Squirrelfeed

*gBeta - Startup*

Madison, WI  
 Mar. 2016 - Oct. 2016

- Initiated a startup business providing an online platform to connect local chefs and small businesses to hungry students on UW Madison's campus.
- Applied Bootstrap and Ruby on Rails to create a web store.

### Security and Privacy Using Blockchain

*UW Madison Internet of Things Lab*

Madison, WI  
 Aug. 2016 - Dec. 2016

- Demonstrated Blockchain's decentralization, node consensus, data integrity, and immutability utilizing IBM's Bluemix Blockchain network.
- Deployed Chaincode written in GO with Hyperledger Fabric to simulate the communications of IoT devices as transactions in the Blockchain ledger.