Alec Yu
Software Engineer

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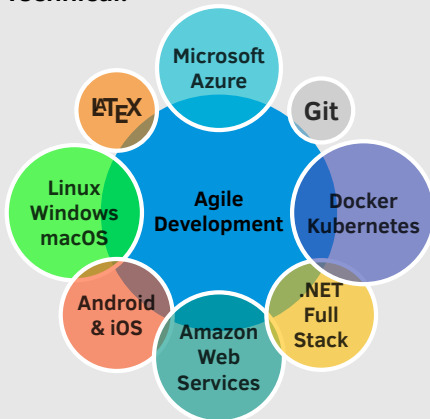
Skills ───────

Development:

Java, C#, PowerShell

Matlab, Python, SQL

C, GO, Javascript

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
- ENG 601 - Internet of Things Lab

Languages:

- English: Native Speaker
- Mandarin: Conversationally Fluent

Education

University of Wisconsin - Madison — Madison, WI
College of Letters and Sciences — *Aug. 2014 - May. 2018*
  Bachelor's in Computer Science — *GPA: 3.24*
  Minor in Mathematics

Experience

Johnson Controls Inc. — Milwaukee, WI
Software Engineer — *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 a new DAL with RPC and REST APIs for communicating time series data with other containerized services.

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.
  – Designed equipment health monitoring pages and data trend graph elements in the ASP.NET Web Application UI.

Johnson Controls - Hitachi, IoT Development — Air Cloud Pro/Home
  – Coordinated with overseas development teams in China, Japan, and India to launch a collaboration project.
  – Engineered an AWS based IoT Hub for a cross-platform application for monitoring and controlling HVAC systems.
  – Implemented a data collection and streaming service leveraging resources from AWS such as Fargate, Kafka, Kinesis, and Lambda.

Projects

Squirelfeed — Madison, WI
Startup Project — *Mar. 2016 - Oct. 2016*
  – Initiated a startup business providing an online platform to connect local chefs and small businesses to students on the UW Madison campus.
  – Motivated by students away from home who miss a home-cooked meal.
  – Applied Bootstrap and Ruby on Rails to create a web store.

Security and Privacy Using Blockchain — Madison, WI
UW Madison Internet of Things Lab — *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.