

Alyssa N. Kornlyo

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EDUCATION

University of Michigan – Ann Arbor

Sept 2011 - Apr 2015

B.S.E. Computer Science, Minor in Chemistry

GPA: 3.454 / 4.0

- HKN - Officer 3 semesters (treasurer and recording secretary), general member 5 semesters
- SWE – Member 6 semesters, Team Tech member and historian 2 semesters
- Relevant Coursework: Introduction to Operating Systems, Database Management Systems, Introduction to Cryptography, Autonomous Robotics

WORK EXPERIENCE

The Dow Chemical Company

Jun 2015 - Present

Software Developer

- Implemented real-time data gathering system with associated real-time analytics on data coming from sensors in a field using Microsoft Azure, proving out technical capability for Dow R&D and allowing researchers to gain valuable insights on the data.
- Implemented infrastructure to move large amounts of data from an external API and into an HBase Hadoop cluster in Microsoft Azure, and run analytics on data.
- Implemented scalable calculation service to run MATLAB modeling DLLs as a Cloud Service in Microsoft Azure, whose design pattern and infrastructure is leverageable by other applications in the future.
- Worked with team members to implement the first Keycloak (OAuth 2.0/OpenID Connect) security layer on top of a web application, which enabled greater flexibility and authentication options on-premises and in the cloud from multiple devices.

The University of Michigan – Ann Arbor

Sept 2014 – Apr 2015

Instructional Assistant - Programming and Data Structures

- Led discussion class once a week.
- Held 3 hours of office hours a week.

Bloomberg LP

May 2014 – Aug 2014

Developer – Intern

- Implemented multi-threaded C++ program to keep in-memory cache of market data, and generate files representing the market status at specific timestamps.
- Implemented client-facing service to send request file to get market data.

3Red Trading Group

Jun 2013 – Aug 2013

Developer – Intern

- Improved performance of data conversion application by 300% by re-implementing Python software in C++.
- Wrote software to validate market data constructed from sequential input data, which allowed for better debugging of and test case generation for the entire system.

TECHNICAL PROJECTS

Autonomous Robotics – Senior Design

- Implemented SLAM (Simultaneous Localization and Mapping) algorithm for small, mobile robots.
- Created environment for robots to navigate, and used multiple robots to simulate autonomous vehicles in a city.

SWE Team Tech Pressure Pad

- Implemented Arduino code to output pressure readings to serial port.
- Developed C++ program to read information from serial port and output data to file.

LANGUAGES & FRAMEWORKS	• C / C++	• JavaScript	• C# / .NET / ASP.NET	• Python scripting
	• Bash basics	• PowerShell basics	• HTML5 / CSS3	• SQL / HiveQL
	• Microsoft Azure	• Durandal / Aurelia	• OAuth 2 / OIDC	• Hadoop