

Braden Ehrat

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Education

University of Illinois at Urbana-Champaign

Master of Science in Computer Science

August 2015 – August 2017 (Expected)

University of Illinois at Urbana-Champaign

Bachelor of Science in Computer Science (GPA: 3.48/4.0)

May 2013

Experience

- **UIUC Department of Computer Science** Champaign, Illinois
Research and Teaching Assistant *August 2015 – Present*
Currently researching robotic manipulation and perception of elastic objects, such as wire harnesses
 - Enabled real-time control of two ABB industrial robotic arms with ROS (Robot Operating System)
 - Previously researched IoT with a demo using bluetooth sensors and secure processing on Google Cloud
- **Dair-E-Land Holsteins** Augsburg, Illinois
Technician, Developer, and Laborer *1999 – Present*
Dairy and grain operation owned by my family with about 130 milking cows and 900 farmed acres
 - Automated our cow feed system using a PLC with web-based management, saving two hours of labor daily
 - Improved Internet access by using Multipath TCP to simultaneously utilize two ISPs
 - Enabled remote monitoring of cows through IP cameras viewed on a webpage, TVs, and phones
- **Intel Corporation** Santa Clara, California
Software Architect Intern *Summer 2016*
 - Implemented a REST API using Django Rest Framework with a custom Consul key-value storage backend
 - Built a docker container for trust-based access to secrets with Intel's Cloud Integrity Technology
- **Riverbed Technology** Champaign, Illinois
Software Quality Assurance Engineer *May 2013 – April 2015*
Riverbed's products optimize applications and user experiences over low-bandwidth and high-latency networks
 - Wrote automation to install and test releases of Riverbed's software for Microsoft Azure
 - Maintained automation for testing optimization of the Microsoft Exchange protocol
 - Summer 2012 Internship: Tested performance of optimized SSL traffic on Android
- **Nyx Technology** Chicago, Illinois
DevOps Engineer *January 2014 – August 2015*
Nyx is a startup that allows customers to order food and drinks on their mobile device at restaurants and bars
 - Developed a backend in Amazon Web Services to store a menu, login users, take orders with payments
 - * Both Android and iOS clients communicate with the backend over a REST API
 - * Designed to be secure, scalable, and resilient to failure by following current best practices
- **UIUC Department of Computer Science** Champaign, Illinois
Undergraduate Research Assistant *March 2011 – May 2013*
Developed Locus: A vehicular-based content management network for location-centric applications
 - Developed on Linux, Android, Wi-Fi, GPS and OBD-II with energy-efficient, delay-tolerant protocols
 - Wrote software to collect car location and telemetry data through access points and ad-hoc networks
 - Designed and implemented a web interface to play back historical and live data
- **University of Illinois Housing** Champaign, Illinois
Network Technician *August 2010 – May 2012*
 - Provided technical assistance for University Housing residents and responded to network problems

Skills

- Python, Go, Java, C, C++, JavaScript, SQL, TCP/IP, AWS, OSX, Linux