

# GALEN ABELL

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## EDUCATION

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**North Carolina State University - Raleigh, NC** 2015 - 2019  
College of Engineering, Computer Science, BS  
College of Humanities and Social Science, German Studies, Minor

## SKILLS

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<b>Languages</b>	Go, Python, Java, Shell
<b>Frameworks</b>	Flask, SQLAlchemy, GraphQL-Core
<b>Databases</b>	SQL, Apache Kafka
<b>Software and Tools</b>	Linux, Git, Docker, Kubernetes
<b>Soft Skills</b>	Excellent written and verbal English, conversational German

## EXPERIENCE

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**XCNT (DRIVR Project)** April 2020 - present  
*Software Engineer*

- Developed microservices written in Python for an IoT storage and management backend. Microservices used the CQRS design pattern with Apache Kafka as a message bus for communicating and persisting data.
- Developed a GraphQL-driven API gateway for providing a public interface to the product. The gateway used Kubernetes custom resources to store configuration and could be modified and automatically reloaded during runtime.
- Developed a connector application for interfacing a client's legacy system with DRIVR. The application accepted data from the client via MQTT and was capable of processing 5000+ datapoints per second in production.
- Deployed and managed applications on multiple Kubernetes clusters and participated in on-duty monitoring and maintenance of production systems.
- Participated in high- and low-level product design.
- Helped conduct interviews during hiring and onboarded new team members.

**Research Project (NC State)** May 2019 - June 2019  
*Software Engineering*

- Worked alongside Dr. Chris Parnin to develop Slim, a tool for building RAM-only virtual machines from Dockerfiles. Slim was written in NodeJS and supported VirtualBox, Qemu/KVM and Hyperkit.

**Garmin International** 2017 - 2018  
*Software Engineering Intern*

- Created in-house testing application to help test and diagnose a new Garmin product. Application was written in C# and Windows Presentation Foundation and used the Model-View-Viewmodel design pattern to ensure efficient updates of the frontend.
- Created Android and iOS companion apps for Garmin's Impact baseball sensor. Apps were written in Java and Swift, respectively. Work included project design, feature implementation, bug fixes, performance profiling and maintenance.