

# SEAN HELM

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## EXPERIENCE

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### Amazon

Seattle, WA

#### Software Development Engineer

Apr 2019 – Present

- Automated AWS resource management needed for FBA applications to integrate with new view materialization platform.
- Ensured consistency across FBA applications by engineering workflow to ingest snapshots into DataWave and publish updates.
- Led all service scaling and operational readiness efforts to prepare for traffic doubling during Prime Day and holiday season.
- Identified a widespread data quality issue affecting sellers in Europe and designed a backfill process.

### Capital One

McLean, VA

#### Software Engineer

Sep 2018 – Apr 2019

- Architected a caching solution in Java/Spring for a big data platform to reduce latency for recently run Snowflake queries.
- Lowered operational costs by enabling lifecycle management for the underlying cache using Python and AWS Lambda.
- Rewrote the security layer for Spring microservices to use LDAP for user authentication.
- Built out infrastructure with Jenkins and Terraform to automate deployment of AWS resources for the cache microservice.

### Alarm.com

McLean, VA

#### Software Engineering Intern

Jun 2017 – Aug 2017

- Optimized home automation testing by implementing a Windows service in C# for allocating device tests to available servers.
- Leveraged Ember.js to provide a user interface for the distributed testing service and to display real-time testing results.
- Created a REST API with ASP.NET Web API to expose the distributed testing service to the client.

### Alarm.com

McLean, VA

#### Software Engineering Intern

Jun 2016 – Aug 2016

- Automated a tedious process by building an API in C# to efficiently update branding information on security panels.
- Implemented a caching system for account information to speed up the dealer site page load speed by 40-60%.
- Developed a responsive, customer-facing tool to allow home owners to search for and verify local home security dealers.

## EDUCATION

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### George Mason University

Fairfax, VA

Bachelor of Science in Computer Science; Major GPA: 3.38.

May 2018

## PROJECTS

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### Music Genre Classification with Gradient Boosting

- Applied XGBoost machine learning algorithm in Python to classify music genres using features extracted with LibROSA.
- Utilized Matplotlib to produce visualizations of various performance metrics to help improve the classification model.

### Reddit Sentiment Analysis

- Filtered negative Reddit comments in real-time into MongoDB using TextBlob sentiment analysis.
- Created a user-friendly web application using Node.js, Express, and Vue.js to review newly extracted comments.

### Toxic Mushroom Deep Dive

- Compared Scikit-learn machine learning algorithms in Python for predicting whether mushrooms were toxic or edible.