

SEAN HELM

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EXPERIENCE

Capital One

Sep 2018 –

Data/Software Engineer

- Architected a caching solution for a big data exploration platform to reduce retrieval latency for recently run Snowflake queries.
- Lowered operational costs by enabling lifecycle management for the underlying cache and metadata.

Alarm.com

Jun 2017 - Aug 2017

Software Engineering Intern

- Optimized home automation testing by implementing a Windows service in C# for allocating device tests to available servers.
- Leveraged Ember.js to facilitate interaction with the distributed testing service and to display real-time testing results.
- Integrated a REST API with ASP.NET to serve as the bridge between the front-end client and the distributed testing service.

Alarm.com

Jun 2016 - Aug 2016

Software Engineering Intern

- Automated a manual 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.

Sure Secure Solutions

Aug 2014 – Aug 2015

Software Engineering Intern

- Revamped a static archive to a secure and dynamic web portal in PHP for easy maintainability.
- Redesigned the company website using HTML/CSS and JavaScript to make web pages robust and responsive.

EDUCATION

George Mason University

2018

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

PROJECTS

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

SKILLS

Languages: Python, Java, JavaScript, C#, SQL, C, HTML, CSS, \LaTeX
Data Science: Scikit-learn, Pandas, Numpy, Snowflake, ZooKeeper
Web: Spring, Hibernate, Express, React, Ember.js, Node.js, ASP.NET
Infrastructure: AWS, Terraform, Jenkins, Docker