Sean Helm

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Experience

Capital One
Sep 2018 –
Software Engineer

– 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
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 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
Jun 2016 – Aug 2016
Software Engineering Intern

– 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.

Sure Secure Solutions
Aug 2014 – Aug 2015
Software Engineering Intern

– Updated a static archive to a secure and dynamic web portal in PHP for easier management.
– Redesigned the company website using HTML/CSS and JavaScript to make web pages robust and responsive.

Education

George Mason University
May 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 Scikit-learn machine learning algorithms in Python for predicting whether mushrooms were toxic or edible.

Certifications

Certified Solutions Architect, Associate
Dec 2018
Amazon Web Services; Expiration Date: Dec 2020