# **Mathew Sprehn**

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#### **Skills**

Proficient in: Java, Spring, C++, Python, HTML/CSS, Node.js, ElasticSearch, PostgreSQL Technical: Agile Development, REST, GraphQL, React, LDAP, NoSQL, MicroServices, SOA, Docker

# **Work Experience**

Walt Disney Studios, Glendale, CA

April 2017 – Present

## Staff Software Engineer

• Leading development team of 6 on a system for consolidating post theatrical servicing.

## Senior Software Engineer

- Currently designing and implementing a solution to systemize post-theatrical operations, with an emphasis on automation.
- Involved in every step of the development process, from feature evaluation to ensuring the implementation works as expected.
- Created a type-ahead searchable service for all of Disney's registered title information, including movies, episodic data, and online video content, in addition to each specific cut of every title.
- Worked on creating a delivery pipeline with Jenkins, allowing on merges to master to make it through the various deployment environments before eventually being made live to users within the week.
- Technology stack involved OpenShift, Postgres, NodeJS, React, Jenkins. Mocha, and Cypress.

**EMC**, Irvine, CA

Jan 2014 – May 2016

### Senior Software Engineer

- Lead a team of 15 engineers in designing and implementing a solution that monitors database activity and backups, and is capable of determining application consistency from a series of inconsistent partial backups.
- Introduced a way to trace related events in a microservice environment, reducing engineering debugging time for distributed events from days to minutes.
- Fixed crucial resource leak in the product, resulting in over a 99% reduction in consumption of tcp sockets in the system.
- Demonstrated a dynamic, plugin-based architecture, allowing for engineering to tailor solutions to customer needs using a series of already existing solutions.
- Designed an agentless backup solution, drastically reducing the overhead and configuration required by the customer.
- Created a simplified framework around issuing remote commands and remote file transfer agnostic to the target or source OS, used in both automation testing and in live development.
- Proposed a development system in which development check-ins that fail automated testing do not get merged into master, resulting in always having a level of stability in the master branch for a project of over 150 engineers

### Software Engineer

- Lead a team of 7 in architecting and implementing authentication and authorization RESTfully using Spring Security in a microservices environment, resulting in over 15 teams in 4 different locations using this service in production.
- Single handedly added LDAP integration support into a product, allowing multiple LDAPs to be added RESTfully with respect to multi-tenancy, resulting in increased accessibility for enterprise customers.
- Part of a triage team for entire product, leading investigations into build and test failures daily, resulting in more frequent stable builds and quicker critical fixes.
- Architected and implemented a way to get all components in a RESTful microarchitecture to confirm all messages received were properly authorized, resulting in a strong and secure distributed system.
- Lead design and implementation of Java Spring to create a RESTful web service for managing backups that exist in the cloud, resulting in increased availability and management of remote, long term retention

data.

• Overhauled C++ build system for Windows, reducing compile time from 70 minutes to 10.

#### IBM, Costa Mesa, CA

Jan 2013 - Dec 2013

### Software Development Intern

• Developed proof of concept applications using the latest versions of case management software, resulting in increased awareness of the capabilities of the product.

## Thales Avionics, Irvine, CA

June 2012 - Dec 2012

# Software Development Intern

• Created and maintained a nightly build system with dependency and version control, resulting in reducing complexity and confusion for development on in-house developers.

## **Projects**

### Bartender Voice Application for Amazon Echo

June 2015

### https://github.com/matsprehn/Bartender

- Bartender application that listens to voice requests about a particular mix drink
- Provides the ingredients required to make any drink, pulling the data from a cocktails wiki
- Also capable of providing step by step instructions on how to make the drink.
- Done entirely in node.js with Amazon Lambda

## Restaurant Finder Application for Amazon Echo

June 2015

### https://github.com/matsprehn/AlexaYelp

- Restaurant application that listens to requests for a great place to eat.
- Polls Yelp API for highly reviewed, highly rated restaurants that are currently open nearby.
- A brief description of the location's genre is mentioned along with a "highlight" review of the location.

#### OC Food Access

Jan 2013 - March 2013

#### https://github.com/matsprehn/Harvest

- Upgraded a current database/administration backend for charity leaders.
- Duties included overseeing a team of 5 students during the implementation phase and ensuring all requirements were met.
- Upgrades reduced time spent on the software by over 50% for the client.

#### Code: UCI

Dec 2011 - May 2013

- A student run project used as a platform for coding competitions.
- allows students to create innovative solutions to programming problems and submit them remotely, where the platform then rates each user according to how they performed in terms of speed and accuracy
- Currently, students are allowed to submit both Java and Javascript programs to the competition.

#### **Education**

### University of California Irvine, Irvine, CA

Sept 2011 – Dec 2013

Bachelors of Science, Computer Science

#### Mt. San Antonio Community College, Walnut, CA

Aug. 2008 - June 2011

Computer Science