Software Engineer

JORDEN LOWE

SKILLS & EXPERTISE

- C#
- JavaScript
- Angular
- SQL Server
- OAuth2
- MongoDB and Realm
- Docker
- Linux/Windows
- AWS / Azure
- REST APIs
- GraphQL
- Visual Studio
- Azure DevOps
- Git
- Jira
- Confluence

WORK EXPERIENCE

Senior Software Engineer - Great Lakes Psychology Group   *11/20 - Present*

Working directly for COO to lead team with experience on Cloud technologies and Healthcare to build an EHR for the company.

- Mentored team on development process and designing user stories.
- Designed and reviewed initial technologies and architecture to use.
- Managed MongoDB and Realm applications in hosted solution.
- Created authorization system used for the application using MongoDB Realm to authenticate the user.
- Built initial GraphQL API from MongoDB Realm.

Senior Software Engineer - *Health Catalyst*   *04/17 - 11/20*

Patient Safety Team - Angular application that reads from the In-Home data warehouse to display patients with safety issues and alert doctors and nurses to help keep the patient safe and healthy.

- Angular js application with .net core backend and SQL Server database.
- Developed the automatic testing in our CI pipeline in Azure dev ops and gave weekly updates of our progress in .net and Angular
- Designed the client side implementation of Authorization for the Patient safety Roles/Groups/Users and Permissions
- Created Filter system on the backend using a strategy pattern to commonize Filtering approaches.
- Used: .net core 2.0 and Angular 8.0.

Security Team - Merged with the data team, the security team managed Authentication via Azure AD, AD and OAuth2 (using Identity Server), as well as Authorization

- Managed the whole build process using docker images in Azure DevOps using builds and releases.
- Implemented Azure AD into our Identity Server integration to help clients who dont like AD trusts in their network.
- Built features into an Authorization site to manage permissions/groups/roles in our Authorization service.
- Supported after hours support for permissions.
- Used: .net 4.6, .net core 2.0 and Angular 6.0

Data Team- Responsible for development and release of Metadata of the data warehouse for the Health Catalyst platform. The platform is a data warehousing and analytics platform that accesses EHR/patients/BIlling work for health systems. These insights help save patients to hospitals' overall budget.

- Managed the whole build process using Azure DevOps using builds and releases.
- Added OAuth integration into the application to lock down access to the metadata.

o   Mentored new team members and was team's scrum master
o   Maintained a strong unit and integration test suite for easier regression testing.
o   Worked remote with the teams from all over the country in other timezones.

Software Project Lead - *Panasonic Automotive*   *04/16 - 04/17*

Aupeo - Responsible for development and release of a cloud music service running in AWS. This included using my experience with documenting process, APIs and creating developer VMs to make a developers life quicker and easier to maintain the software. The service was built in Ruby, MySQL, PostgresDB and CassandraDB. Duties Include:

o   Working with remote engineers to complete tasks from Ukraine.
o   Act as Product Owner to investigate and Create Requirement Documentation.
o   Worked on projects like Audio Level Management, hybrid recommender and integrating the project with TheFilter to manage personalized music playlists.
o   Creating Release Plans and Guiding a team of 5 developers on 3 Releases.
o   Developed API Documentation using swagger to describe the Cloud Music Service.
o   Developed Docker Images for database and service environment.
o   Developed Vagrant VM to make development setup experience faster.
o   Developed Confluence documentation of all our internal processes, including environment locations, procedures, setup guides, release notes, swagger documentation and more.
o   Helped troubleshoot logs which enabled engineers to fix bugs quickly.
o   Established a GitFlow like branching scheme.
o   Worked together with team of engineers and dev ops to smoothly deploy applications in under 30 minutes.
o   Used Jira to track bugs and collaborate with the team on what is left in the release.
o   Worked with outsource team to build a concept data warehouse.

Senior Software Engineer – *Quicken Loans*   *01/12 to 04/16*

API Gateway Team – An API gateway is enterprise software to aggregate and secure all the API's within Quicken Loans. This solution helps manage cross-cutting concerns, like security, metrics and documentation. It is an integral part in allowing our business to integrate our cloud software with our on premise software. The system is java-based and used a RESTful modeling language called RAML. It runs on CentOS servers deployed in AWS and on premise.

o   Mentored, Consulted and Designed developer awareness of building RESTful services.
   o   Used modeling in a language called RAML
   o   Workshops and mentoring sessions
   o   Developing presentation materials
   o   Using Confluence to document all aspects of our API's
   o   Improved developer efficiency when generating REST clients.
   o   Building clients based off RAML specification
   o   Creating tools around managing client Id and Secrets for their API's to allow searching and migrate from environments easier
   o   Created RAMLsharp, a tool to automatically generate their API RAML
o   Ensured the most uptime by monitoring the servers of the API gateway with logs
o   Identified performance bottle necks in TLS 1.2, VPN tunneling, clustering and JVM using JMeter to ensure the architecture was optimally performant.
o   Brought new ideas to QA and load testing teams like service virtualization (mountebank) so that they could mock 3rd party services while testing End to End.

Document Repository Team - The mortgage process relies heavily on documents and we used OnBase to store ours. Not only does OnBase store and retrieve documents, it also has a rules engine to allow business rules to route documents in the organization. OnBase uses a combination of file system and SQL Server database to store documents. It has a .net API wrapper and now, a RESTful API.

- o   Empowered developers in the company to access documents without our intervention by creating a RESTful API using Hypermedia (HAL media type) to access documents.
- o   Since the .net API wrapper takes time to execute, we used a message queue to drop updates for another windows service to process.
- o   Utilized cache (Redis) to make sure queries from the RESTful service responded quickly.
- o   In my spare time I redesigned and built a document exporting system that dropped investor onboarding from one week to a couple of hours.
- o   The document export system used a workflow-like architecture and plug-in model, using Razor Engine, to dynamically change investors on the fly, reducing wait time on new investors.
- o   The document export system exported several million documents a week to 50+ different clients.
- o   I mentored engineers through talks, one-on-ones and panels to drive home Service Oriented Architecture, Microservice design, API design, unit testing, continuous integration and design patterns. My goal was to give developers a good sense that design is within their reach.

Software Developer – *New World Systems*   11/10 – 01/12

Aegis Team – Worked on a suite of client applications designed to improve local municipalities ranging from E911 dispatch systems to record keeping system for police, fire and jail. This project was mainly in VB 6.0 server with some .net clients.

- o   Improved product stability by fixing bugs.
- o   I solved legacy issues by becoming a knowledge base for Windows Mobile Barcode scanners, Zebra Printers, Cannon and Sony Cameras, which improved the customer experience.

Software Developer – *Gongos Research*   05/10 – 11/10
- o   Implemented a time entry application to optimize user interaction and the tracking of project overhead.

Software Developer – *Tweddle-Litho Group*   07/08 – 05/10
- o   Developed on a DVD based application for Chrysler's first digital vehicle owner manuals.
- o   Improved an artist workflow collaboration website for international users.

EDUCATION

Master's Degree in Computer Science – *University of Michigan, 2009*
Bachelor's Degree in Computer Science – *University of Michigan, 2006*

TRAINING / CONFERENCES

2019

- o   IHI (Institute for Healthcare Improvement) Conference

2015

- o   Mulesoft API platform Training
- o   O'Reilly Software Architecture Conference

2014

- o   O'Reilly Fluent Conference
- o   Kalamazoo X
- o   API Craft

2013

- o O'Reilly Fluent Conference

PROJECTS / INTERESTS

- o Sample Application to help give an idea of all the things to think about for a given app:

  - o https://github.com/supermitsuba/PeopleSearch
- o Designed IOT (internet of things) bulletin board:
  - o Github link: https://github.com/supermitsuba/sms
  - o Using Ardunio, raspberry PI, docker and LED tiles
  - o Demostrates a few docker images working together
- o Keyboard nerd:
  - o My repo for keyboard firmware that contribute to: https://github.com/supermitsuba/qmk_firmware
- o Maintainer of open source project to automatically generate a RAML specifications for ASP.net web api's:
  - o https://github.com/QuickenLoans/RAMLsharp