| *Software Engineer*  **Jorden Lowe** |  |
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## SKILLS & EXPERTISE

| * C# * SQL Server * OAuth2 * REST APIs * GraphQL * JavaScript/NodeJS * Typescript | * Docker/Kubernetes * Linux/Windows * AWS / Azure * Github * Visual Studio * Terraform * Octodeploy | * TeamCity * Azure DevOps * SumoLogic * Datadog |  |  |  |  |  |
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**WORK EXPERIENCE**

**Senior Software Engineer - Health Catalyst** *05/23 - Present*

Working on the Pop Analyzer and Insights team where we develop features to take data from a data warehouse and create populations and visualizations.

* Researched Pivot Table alternatives for showing Populations to allow users to drill down to details for finding trends and making decisions
* Implemented Custom Columns allowing users to create functions using NCalc to allow new columns to be created within Populations.
* Redesigned documentation wiki to organize popular information, like Runbooks, design, How-Tos, and more.

**Senior Software Engineer - Linus Health** *11/22 - 05/23*

Integrating with APIs of EHR’s to allow our Brain Health Platform to send information from a Brain Health Assessment. These integrations use Node, typescript, AWS services like Lambda,S3, SQS, SNS, Cloudwatch, Secrets Manager DynamoDB, Terraform, Github

* Build infrastructure using terraform in AWS.
* Participate in code reviews
* Log errors to S3, DynamoDB and Cloudwatch
* Manage and maintain the full end to end integrations with Athena Health APIS and Redox (FHIR)
* Build Design Documents of the Lambda Orchestrations in Confluence

**Senior Software Engineer - Cardlytics** *10/21 - 11/22*

Part of the Data Team, managing APIs (REST and GraphQL) to expose processed data in dashboards and reporting.

* Organized the team’s documentation and links to help optimize onboarding and share information with the team easily.
* Worked with developers from India, Ukraine and all over the US to build the applications under our charter.
* Developed GraphQL and REST endpoints to help optimize API client’s access to data.
* Deploy and Maintain the applications’ CI/CD pipeline using Octodeploy and TeamCity.
* Shifted applications from on prem into the cloud with the help of Terraform, Kubernetes and Docker.
* Transform our applications to utilize less code but more of AWS’s platform as a service.
  + Use API gateway to front APIs
  + Use lambdas instead of timed applications
  + SQS instead of standing up Kafka/Message Queues
* Diagnose and fix issues related to oncall activities.
* Write Unit/Performance/UAT tests to verify the code works, is fast and will deploy with no impact to downstream users.
* Mentor junior devs to start their career and how to navigate a large company with enterprise level software.
* Offer help to anyone in need and answer as many questions in slack as possible.

**Senior Software Engineer - Great Lakes Psychology Group** *11/20 - 10/21*

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 don’t 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.
* Mentored new team members and was team’s scrum master
* Maintained a strong unit and integration test suite for easier regression testing.
* 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:

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

* Mentored, Consulted and Designed developer awareness of building RESTful services.
  + Used modeling in a language called RAML
  + Workshops and mentoring sessions
  + Developing presentation materials
  + Using Confluence to document all aspects of our API’s
* Improved developer efficiency when generating REST clients.
  + Building clients based off RAML specification
  + Creating tools around managing client Id and Secrets for their API’s to allow searching and migrate from environments easier
  + Created RAMLsharp, a tool to automatically generate their API RAML
* Ensured the most uptime by monitoring the servers of the API gateway with logs
* Identified performance bottle necks in TLS 1.2, VPN tunneling, clustering and JVM using JMeter to ensure the architecture was optimally performant.
* 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.

* Empowered developers in the company to access documents without our intervention by creating a RESTful API using Hypermedia (HAL media type) to access documents.
  + Since the .net API wrapper takes time to execute, we used a message queue to drop updates for another windows service to process.
  + Utilized cache (Redis) to make sure queries from the RESTful service responded quickly.
* In my spare time I redesigned and built a document exporting system that dropped investor onboarding from one week to a couple of hours.
  + 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.
  + The document export system exported several million documents a week to 50+ different clients.
* 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.

**EDUCATION**

**Master’s Degree in Computer Science –** *University of Michigan, 2009*

**Bachelor’s Degree in Computer Science –** *University of Michigan, 2006*

**TRAINING / CONFERENCES**

2019

* IHI (Institute for Healthcare Improvement) Conference