

RYAN TRAPP

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EDUCATION

Colorado Technical University

Masters Computer Science - Software Engineering

Oct 2019 - Mar 2021

University of St. Thomas

B.A. Computer Science and Biology

St. Paul, MN

Sept 2013 - Dec 2017

WORK EXPERIENCE

Optum United Fraud, Waste, Abuse and Error

Senior Software Engineer

MN

Sept 2020 - Current

- Worked as a full stack developer on React projects related to managing fraud, waste, error and abuse in insurance claims.
- Led creation of internal React component library that was used by division of eight plus teams of developers. Worked on back end of NodeJS that utilized MongoDB and GraphQL, both written in Typescript.
- Took over OpenID client server open source project that was used for NextJS applications and had been abandoned by developer who had left company. Investigated library's source code and fixed security holes that had been present since library's creation.
- Designed and implemented novel authentication method that seamlessly integrated legacy project with new micro front end that passed all audits from internal and external security teams.
- Created CICD pipelines using Jenkins to deploy to Kubernetes and Azure to facilitate zero downtime deployments.

Medtronic Care Management Services

Software Developer

MN

Jan 2018 - Sept. 2020

- Worked as a full stack developer on a variety of projects all centered around improving outcomes of chronic, complex, co-morbid patients.
- Created HIPAA compliant patient monitoring application for Android using Java and Kotlin. Led the creation of the microservice backend from scratch that drives the application using NodeJS and MongoDB. Used AWS as a hosting environment as well as a variety of other functionalities. Created web portals using Angular to manage the platform. Used WebRTC to create HIPAA compliant video chat application for clinicians and patients.
- Created modular rules engine designed to be utilized by non-technical clinicians to evaluate patient data and suggest actions in a monitoring application.
- Created CICD pipelines using Gitlab, Jenkins, Artifactory, Puppet, and Octopus.
- Designed and implemented chatbot application to facilitate triage of patients with COVID-19 concerns. Worked at unprecedented rate in Medtronic to develop and release application within two-week time frame in order to meet unprecedented patient demand.
- Worked with Amazon Cognito to integrate SAML based authentication via OAuth2.0. Integrated this authentication with Microsoft Active Directory to create a seamless authentication process for users.

Praxik LLC.

Cross Platform Developer

MN

Nov 2016 - Dec 2017

- Created health coaching application for Android, iOS, and web platforms using AngularJS and Ionic. Took direction from leadership team, designed the project plan, have led the development team and testing of the application for the past year. Utilized Google Firebase and Medable to store data in a non-relational way.

Optum

Technology Development Program Intern

MN

June 2016 - Sept 2017

- Interned at UnitedHealth Group under Optum Technology for two summers as part of their Technology Development Program.

- First Summer – Optum outsourced my work to UnitedHealthcare, where I assisted with migrating Military and Veterans migration to Adobe Experience Manager. I oversaw the creation of the pages and created a workflow in order to ensure pages were created correctly.
- Second Summer – Part of research and development team that developed iOS applications in swift. We used various NLP engines and bot platforms to create an omnichannel experience. Also created a bot observation platform for agents to manage multiple bot conversations, which won a company-wide hackathon and presented solution to CEO of UnitedHealth Group as a possible tech to look out for at leadership conference.

University of St. Thomas
Research Assistant

MN
 Sept 2013 - Sept 2017

- Collaborating with the DNR and a St Thomas faculty advisor and a small research team to quantify the effects of Zebra Mussels on Minnesota lakes through the use of stable isotopes and mixing models to compare two lakes at different stages of infestation. Paper currently in final stages of publication and presented findings at Ecological Society of America in Florida in 2016. Worked on two additional studies with DNR. One that quantifies the niche ecology of game fish in Minnesota and another that studies the effects of global warming and eutrophication on cisco. This work was published in the Journal of Freshwater Ecology.

University of St. Thomas
Computer Science and Statistics Tutor

MN
 Sept 2014 - Sept 2017

- I excelled in both computer science and statistics classes, so my professor recommended me for a tutoring position. This allowed me an opportunity to gain additional insight into various computer languages. It also provided an opportunity to communicate this knowledge to students in way that allows them to understand the subject matter.

SKILLS

Web Development:	Angular, NodeJS , .NET, WebRTC, Typescript, React, Piral,
Native Android Applications:	Created Android applications using Java and Kotlin
Native iOS Applications:	Used Swift to create a native iOS application
AWS:	Lambda, API Gateway, Cloudfront, Codepipeline, Cloudwatch, Cognito
NLP Platforms:	Have used various NLP platforms in health care settings
Agile Methodologies:	Ability to communicate with business in Agile environments
Leadership:	Gravitate towards leadership roles in teams