

EDUCATION

University of San Francisco, MS in Computer Science (GPA: 3.44) *San Francisco, CA - Dec 2020*
FullStack Academy of Code, Software Engineering Bootcamp *Chicago, IL - June 2017*
Indiana University, BS in Informatics *Bloomington, IN - May 2015*
Relevant Coursework: Discrete Mathematics, **Data Structures and Algorithms**, Advanced Object Oriented Programming, Advanced Data Structures and Algorithms, Parallel Programming

WORK EXPERIENCE

SOFTWARE ENGINEER **Toyota Research Institute** *September 2017 - December 2018*
TRI (www.tri.global/) - Toyota's R&D arm for autonomous vehicles and robotics

- Developed 5 web apps written in **ReactJS** for autonomous vehicle data ingest, search and visualization
- Created a web app with **Mapbox** to track cars real-time with a dashboard view of LIDAR, IR and system data
- Designed, and managed release of an **image segmentation tool**, reducing error rates by 4/100 images labelled
- Implemented protocol for security by **encrypting image per pixel** via conversion hash maps, published daily
- Built a **faceted-search** to parse through over 8 Petabytes of drive logs, growing daily search queries from 120 to 750 and shaving search time by 65%
- Implemented a unique testing solution into our **Jenkins** pipeline by running end to end tests on a headless browser inside a **Docker** container, during every build that solved Jenkins' simultaneous build conflicts
- Consistently maintained above **95% test coverage**, averaging 146 tests/app using Jest, Selenium, Chai and others

CO-FOUNDER/WEB DEVELOPER **Reveel** *May 2015 – August 2017*
Reveel([Reveel Winning Pitch](#)) - Social platform to connect with interesting people via local events

- Implemented barebones Wordpress theme and optimized plugin usage to decrease page load time by 45%
- Headed UX design, decreased number of screens for posting events from 22 to 16, increasing total posts by 20%
- Pitched and won at Fund Conference'16, presented at startup showcase Technori and WGN Radio 720 AM

PROJECTS

Magic-Mirror (Favorite Hardware Project) ([Github](#)) *Current*

- Smart Mirror with two way glass displaying app running on a raspberry pi
- Containerized smart mirror app built with **React/Redux** and deployed as a light weight **Docker** image
- Integrated custom modules using Google routes, Darknet weather and Spotify API's for a personalized UX
- Building seamless experience to personalize mirror through mobile app written in **Dart** using **Flutter**

Spell Checker Web App ([Github](#)) *April 2019*

- Auto-correct for the web, provides real-time word suggestions on every user keystroke
- Developed with **Maven**, using **Spring Boot** on the backend and React on the frontend
- Created a prefix tree to store dictionary words, which provides $O(k)$ runtime (k is length of word) for retrieval

Eye-color Predictor Machine Learning Model ([Github](#)) *Current*

- Predict the eye color of a user by analyzing variations in DNA sequence using **Hidden Markov Model**
- Implemented **XGBoost** and fine tuned cross validation and parameter grid to increase prediction rate by 1.8%

Arrow Storm Game (Favorite Coding Project) ([Play the Game!](#) | [Github](#)) *December 2018*

- Online multiplayer shooting game, created using vanilla javascript, a physics engine and **socket.io**
- Reduced in-game latency by re-creating the real-time gameplay on clients and cutting socket communication by half
- Created a map editor, allowing users to create, customize and compete on maps of their own design

TECHNICAL SKILLS

Proficient: Java, Javascript, Typescript, React/Redux, NodeJS, Docker, Maven, Unix, HTML/CSS, Git, Selenium, SQL
Familiar: Python, C, R, Spring Boot, PostgreSQL, MySQL