# Matthew Farstad

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# **FDUCATION**

## WINONA STATE UNIVERSITY

BS IN COMPUTER SCIENCE

May 2020 | Winona, MN College of Science and Engineering GPA: 3.4 / 4.0

# COURSEWORK

## **UNDERGRADUATE**

Practicum

Operating Systems

Machine Learning

Networking and Telecommunications

Advanced Networking

Software Engineering

Web Programming

Computer & Network Security

Principles of Programming Languages

Data Structures

**Embedded Systems** 

Applied Database Management

Database Systems Design

Distributed Application Development

#### **CERTIFICATIONS**

AWS Fundamentals: Going Cloud Native December 2019 | Coursera React.js Essential Training December 2019 | Linkedin / Lynda

# SKILLS

#### **LANGUAGES**

Java • C# • Python • Javascript

C++ • Golang • PHP • SQL

CSS • HTML • Dart • Pug

#### LIBRARIES / TECHNOLOGIES

Node.js • React • UWP • WPF

AJAX • Docker • MS Azure • AWS

Redux • Express • Realm • Electron

Webpack • JavaFX • Swing • Redis

NATS • Hibernate • JSP • JQuery

MQTT • ODBC • JDBC • JSP

Selenium • Git • Flutter • Mocha

SVN • Regex • React Native

#### SOFTWARE / PLATFORMS

Visual Studio • Visual Studio Code

Eclipse • TFS • Test Studio

Realm Object Server • Windows

JavaFX Scene Builder • OSX

Ubuntu Linux (Mint) • EC2

Windows 10 IOT Core • Rasbperry Pi

UI Path • Postman • Mulesoft

## **EXPERIENCE**

## FASTENAL | SOFTWARE DEVELOPER

Feb 2020 - Present | Winona, MN

- Lead development on second phase of Product Locator Kiosk application.
- Added new features and added UI using UWP, C#, XAML, and MVVM architecture.
- Created fake customer generation software in Go + Python to streamline development of new features.
- Coordinated ODBC queries and API calls to create Product Locator Customer File Generator for use in a production environment.

## SEMIREG INDUSTRIES, LLC. | INDEPENDENT CONSULTANT

May 2019 - May 2020 | Winona, MN

- Created label printer emulation software to expand range of supported devices without spending unnecessary capital.
- IOT work involving Node.js, Docker, and Azure.
- Developed POC mobile apps with React Native.
- Created Speech-to-text solution for label printing software.
- Updated private fork of Node.js native modules with C++ and Native Abstractions for Node.js to support Electron 7.

# WINONA STATE UNIVERSITY | SOFTWARE TESTER / DEVELOPER

October 2016 - May 2020 | Winona, MN

- Cross compiled Python modules written in C from x86 to MIPS Linux for use in router.
- Developed Android applications using React Native to supplement device portal.
- Developed UI unit tests for proprietary device management applications.
- Tested new releases of proprietary software and wrote detailed bug reports for the engineering team.
- Developed responsive SQL query builder front end for database for ease of use throughout company.

# PERSONAL PROJECTS

#### JZODD | JAVA, JAVAFX, REGEX, MIDI

January 2019 - March 2019

MIDI composition software with a custom notation script written with Regex to convert strings into music.

Available for Download on Github

## MFARSTAD.COM | Node.js, Express.js, AWS, Python

January 2019 - March 2019

Personal website that hosts my resume, a blog, links to my music, an online MIDI-based chord detection app, and a clone of the popular card game Skip-Bo. Hosted on an EC2 instance in the cloud with SSL certs maintained by me, and a Python/Node.js MQTT relay for chord detection. Link to website.

#### TUCKER ZODD | Composer and Producer + Audio Engineering

Personal project with two released albums. Available on Bandcamp, Soundcloud, Spotify, Apple Music, and Youtube. Link to releases.