Joseph S. Trierweiler

Software Engineer and Technology Consultant

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Education

University of Nevada Reno   **2018 – 2022**
Bachelors in Computer Science and Engineering

Skills

- Full Stack Web Development with React (JSX), ASP.NET Core (C#), and PostgreSQL
- Embedded Systems Development with ARM Microcontrollers (C) and Internet of Things (IoT) frameworks
- Mobile development with Android Studio (Java) and .NET MAUI (C#)
- Data Transformation and Signal Processing using transforms, filters, and data compression techniques
- Experience with Agile Tooling software, such as Azure Active Directory (ADO) and JIRA
- Composing reports to describe complex data to clients and colleagues

Work Experience

Ernst & Young LLP   **2022 – 2024**
Technology Consultant

- Deployed on multiple engagements across the country to visit clients, learnt how to foster relationships, collect business requirements, and improve user adoption all while representing EY.
- Worked with colleagues to draft process flows and design documents that were key for understanding implemented systems.
- Leveraged EY's resources for learning engagement specific skills for Enterprise Resource Planning (SAP), Cloud Deployment Services (Azure Cloud Services), and Electronic Warehouse Management (EWM).
- Utilized: SAP GUI & Fiori, Azure Dev Ops, Azure App Services, MS Excel, Word, PowerPoint, and Matplotlib

Advanced Materials and Devices   **2020 – 2022**
Software Engineer

- Contributed to the development of a wearable explosion sensor contracted by the Department of Defense.
- Responsible for programming the microcontroller's logic.
- Implemented a solution to record blast waves via an analog to digital converter, store data locally via a micro-SD card, and other extended functionalities (Bluetooth pairing, Sleep/wake, acceleration & gyroscope sampling, etc.)
- Practiced power optimization strategies in collaboration with an electrical engineer to extend battery life without impacting the resolution or capture of blast readings.
- Collaborated with other mechanical, electrical, and software engineers to test and develop the sensor, preparing material for daily standups.
- Utilized: C programming, MATLAB, Git, Microcontrollers, Multimeters, Soldering, Filters

Featured Projects

GitHub Account: https://github.com/jotreewater *(for code and additional projects)*

Social Sound   **2022**
Android Application

- Designed a novel Android application with a group of students at the University of Nevada Reno.
- Users of the app passively share what music they're listening to whenever in proximity to another user.
- Implemented Google's GPS services for tracking location data and Spotify's API for recent music data.
- Firebase was used for authorization flow, server logic, and database capabilities, keeping track of a User's collected songs between sessions.
- Utilized: Java programming, Android Studio, Firebase, Git, Spotify API, Unit Testing.

Predictive Modeling with TensorFlow   **2022**
Stock Modeling Project

- Created a Python program that uses a Recurrent Neural Network (RNN) to predict future stock prices.
- Built various configurations to compare different RNN methods such as stacked LSTMs and Bidirectional LSTMs.
- Optimized models for lowest mean squared error via an automated testing system, adjusting parameters such as neuron density, learning rate, and temperature.
- Generated plots of each model's performance compared to its other configurations with Tensor board.
- Utilized: Python, Keras, Jupiter Notebook, TensorFlow, Pandas, NumPy, Machine Learning