Erfan Huq
Software Engineer

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Work Experience

Miovision - Software Developer   May - Sep 2022

• Developed a next-generation portable video recorder and vehicle detection system with **TypeScript**
• Independently implemented a front-facing queue-based recorder scheduler in **Angular**, with backend **REST API** calls with **Node.Js**
• Used **UNIX Shell Scripting** to automate the collection of all internal debug logs, speeding up QA testing and debugging
• Utilized **GStreamer** with **nvoverlaysink** to stream lossless video directly from camera to device

Ford - Software Developer   Sep - Jan 2022

• Developed various UI components in **React** and internal features in **JavaScript** to increase efficiency
• Implemented test driven development with **Jest** to the Towing subteam, increasing test coverage by **20%**
• Worked with a distributed team under **Agile** principles and utilized appropriate version control protocols with **Git**

University of Waterloo - Full Stack Developer   Jan - Aug 2021

• Designed and built multiple web pages using **Vue** and did full stack development with **PHP**
• Used **React** in partnership with **TailwindCSS** to build a website
• Developed a **PHP API** to pull data from a **MySQL** database and built visualizations using **LeafletJS** and **MapBox**
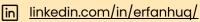
Projects

Clay - 3D Game Engine

• Built and designed an open-source 3D graphics engine with movement capabilities from scratch using **C++**
• Implemented **Object-Oriented Programming** principles and linear algebra to simulate movement within a 3D space
• Created client-facing API to abstract user-inputted objects to eventually project and create 2D rasterizations

Frauddit - A Working Reddit Clone

• Developed a working clone of reddit with **Vue** and **Firebase** in **VS Code** in coordination with **Firebase Cloud** Functions
• Utilized **Firebase** to authorize users, and create required schemas

Skills

Languages

JavaScript	PHP
Typescript	SQL
HTML	MATLAB
CSS	C/C++
Python	Java

Technologies

React	NodeJS
React Native	Firebase
Vue	MongoDB
Angular	Express
TailwindCSS	MQTT
Flask	GStreamer
Yarn	NumPy
NPM	Pandas

Tools

OpenCV	JIRA
VisualStudio	Slack
Netbeans	SOLIDWORKS
Eclipse	AutoCAD
Git	Figma
Confluence	MS Office

Education

University of Waterloo
2019 - 2024

• BASc in Mechatronics Engineering
• 3B Mechatronics Engineering

Relevant Courses

• Data Structures and Algorithms
• Linear Algebra
• Audited course: Machine Learning with **Python**
• Audited course: LinkedIn Learning DevOps with **AWS**