Erfan Huq

Full Stack Software Engineer

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Work Experience

Aurora Solar - Software Developer — Jan - Aug 2023

• Contributed to the whole migration of the Aurora CAD 3D Design Software spanning 2 quarters in the **React, Typescript,** and **Ruby on Rails** tech stack
• Led test coverage migration, transitioning **50+** tests in **two sprints**, fortifying software quality and robustness
• Directed end-to-end feature development, orchestrating multi-developer collaboration and expanding **MobX** state management capabilities
• Collaborated with product managers, and designers to launch user-centric features, consistently receiving **positive customer engagement** over two quarters
• Developed an interactive system within the CAD application using **GraphQL**, enhancing user control over AI Roof tasks

Miovision - Software Developer — May - Aug 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

Ford - Software Developer — Sep - Dec 2021

• Developed **React** Profiler to pinpoint and resolve unwanted re-renders, driving a **15%** increase in UI responsiveness and enhancing the user experience
• Boosted test coverage by **20%** through extensive **Jest** testing for feature team

University of Waterloo - Full Stack Developer — Jan - Aug 2021

• Spearheaded the end-to-end development of two web applications using **Vue, NodeJS** and **MySQL** with a custom **PHP API** for real-time data integration

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

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	Git
VisualStudio	SOLIDWORKS
JIRA	AutoCAD
Slack	Figma

Education

University of Waterloo
2019 - 2024

- BASc in Mechatronics Engineering
- 4A Mechatronics Engineering

Relevant Courses

- Image Processing
- Co-operative and Adaptive Algorithms
- Data Structures and Algorithms
- Linear Algebra
- Audited course: Machine Learning with **Python**
- Audited course: LinkedIn Learning DevOps with **AWS**