

Karam Danial

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Languages: C#, React, Python, C/C++, JavaScript, MATLAB, Dart/Flutter, Rust, CUDA, SQLite

Skills: Full stack development, Mobile and web app development, Embedded/Systems Programming, DevOps

Tools: VS Code, Android Studio, GitHub, Jira, VIM, Linux, Firebase, AWS

EXPERIENCE

Ontario Die | Robotics Application Developer

May - August 2021

- Managed large-scale relational databases using **SQL Server Management Studio** to log over 100,000 jobs and transactions while automating inventory management for multiple company locations.
- Serialized connection between **PLC** and **C#** to simulate automated machine tasks saving ten's of hours in debugging for the QA team and cutting down \$10,000 in weekly expenses.
- Organized, delegated, and tracked task progress as **scrum master** for one month and improved team efficiency by 10%.

Hitplay | Software Developer

January - April 2021

- **Led backend development** of a health-check feature collecting and analyzing user office data in real-time expanding our **SaaS** suite to include an additional **10%** of the market and on-board three new clients.
- Generated **AWS Lambda** services and API Gateways to manage client-information and documents using **DynamoDB** and **S3 Buckets**. Such operations formed the backbone of client-centered software products.
- Serverless application development using **Node.js Express** saved Hitplay over \$30,000 in initial hardware costs and optimized development in the start-up environment.
- Programmed third-party processors in **C/C#** to monitor user devices and send statuses to AWS helping Hitplay on-board over 30 international clients.

E-Business Solutions | Full Stack Developer

June - August 2020

- Combined **Flutter SDK** and **Firebase** to program a cross-platform document-management app with dynamically built, user-specific UI. Served as an adaptable **SaaS** application easily tailored to each user.
- Programmed **Firebase Services API** and **RegExr** to authorize users, store information, and objects.
- Led development of user-friendly in-app **code editor** to help clients write their own apps in **XML**. **Serialized XML** written by users to dynamically render documents, data, and UI elements.
- Translated an application from **Objective C** to **Flutter** within 3 months.

Huawei | Systems Engineer

September - January 2019

- Developed a **Windows Forms** application in **C#** used by engineers to operate an **integrated chip (IC)** for digital signal processing (**DSP**) reducing in-house processor manufacturing demands by 20%.
- Assembled digital circuit components for **ASIC development** environments, creating parametric system conditions for IC development.
- Managed **concurrent programs** in **C#** to safely process digital memory values twice as fast increasing signal throughput by 50%.
- Serialized inputs from peripheral I/O devices to simulate real-world system behaviours in application, improving the processor's compatibility with **cameras, audio, and GPUs**.

Viral Labs | C# VR Developer

May - August 2018

- Created interactive **VR game** menu navigator using **Unity** and **Blender** forming the fundamental functionality required for Viral Labs' **SaaS**.
- Designed and implemented accounting system using **Excel macros (Visual Basic)** to extract company statistics, generate invoices, and send automated emails.
- Spoke directly with customers to obtain feedback about the product and made changes to the product.

EDUCATION

University of Waterloo | Biomedical Engineering BSc 2022

Relevant Courses

Programming and Concurrency: Concurrency with processes, threads, file systems, and memory in **C**.

Programming for Performance: Programming with multi-core processors, GPUs, SIMDs in **RUST** and **CUDA**.

Embedded Software: Structures in embedded software, access protocols, scheduling, and time analysis.