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Summary

I am an enthusiastic and eager-to-learn software engineer with **10+ years** of experience in full software development lifecycle in both the **private and public sectors**. I was also a **tech start-up co-founder** with an extensive background working in a start-up. Having an **entrepreneurial spirit, innovative drive and extensive experience** distinguish me from the field as a software engineer.

Key Skills and Technology Summary

- Programming languages
  - Javascript, Golang, C, C++, C#, Java
- Frontend and backend frameworks
  - React, React-Native, NextJS, Angular, EmberJS, ExpressJS, .NET framework, NodeJS, GraphQL
- Database
  - MongoDB, SQL
- Other tooling and frameworks
  - Docker, Kubernetes, AWS services (S3, EC2, ECS, EKS, MSK), RabbitMQ, OpenAPIs, Apigee, Splunk, New Relic, Jenkins
- Microservices architecture, Micro-frontend architecture, RESTful APIs, Design Systems, Agile Methodologies

Professional History

Service NSW, Sydney, Australia

Senior Product Engineer
(Jun 2020 - Present)

I joined Service NSW to be a part of the **personal account dashboard** team under the **MyAccount** portfolio. Our team is responsible for the web dashboard experience of NSW residents trying to access government services and transactions using their MySNSWAccount. Being the "front window" of the MySNSWAccount user experience, our team works with almost all internal Service NSW product teams like the mobile app team to other external NSW government agencies like Transport NSW to bring into the MySNSWAccount dashboard different services and transactions and make them easily accessible to all NSW residents.

Account dashboard re-platform

I was part of the team that re-platformed the whole account dashboard from Salesforce stack into a technology stack that allows Service NSW to easily maintain, iterate and add functionalities onto the dashboard application.

- I helped build and maintain new personal account dashboard frontend using **NextJS** as the frontend framework and **Strapi** as the dashboard's content management system (**CMS**).
- I helped build and maintain various personal account dashboard **backend services in Golang**.
- I helped build and maintain various **API proxies in Apigee** for publicly exposing some of our backend services.
- I helped write and maintain CI/CD pipeline codes to automate deployment process of our applications into our **Kubernetes** cluster deployed in **AWS EKS**.

Account dashboard services integration

New services and transactions are being onboarded into the personal account dashboard continuously. I lead various **end-to-end integration of new services** into the personal account dashboard such as new licences and voucher programs (ex. Dine and Discover). This involves **key stakeholder management** especially on the technical side of things to clearly communicate technical requirements and expectations from the personal dashboard side of things when integrating new services.

Re-platform of legacy APIs from Mulesoft ESB

I lead re-platforming legacy APIs from Mulesoft ESB into new technology stack. This involves **discovery and documentation** of complete functionalities of these legacy APIs and **designing the solution** to replicate them using Apigee proxies and backend services.

Other key contributions to the team

- I helped **facilitate technical leadership** on the engineering side of things while our principal engineer is on a secondment.
- I helped in **training and mentoring** other engineers.
- I helped lead **engineering recruitment** activities for the team.
- I helped facilitate **support** for our team's products.
- I helped **documenting key knowledge areas** that our team owns.

GBST Holdings Ltd., Sydney, Australia

Web Developer/Lead UI

(September 2018 – Jun 2020)

I was hired by GBST to be part of their **principal R&D project (Composer Evolve)** to transform one of their main legacy product applications that is quickly becoming outdated, difficult to extend and maintain. The project is budgeted at **50M AUD** and is planned to run for **5 years**. I help lead the frontend transformation and apply **micro-frontend architecture**. I lead the **introduction of ReactJS** into the project framework stack and the implementation of the latest UI development best practices, while training and guiding frontend development teams both onshore and offshore.

Composer Evolve Project

- I helped implement micro-frontend architecture into the existing EmberJS-based frontend application and introduced ReactJS to the UI stack to help solve the problems of difficulty in hiring EmberJS developers and leverage the strongly growing ReactJS community.
- I designed and developed framework-level **reusable ReactJS components** used throughout the Evolve application.
- I helped lead the decision-making process in selecting third-party libraries to be used in our frontend development.
- I helped **train and guide multiple scrum teams**' frontend developers, both onshore and offshore, to implement latest UI and UX best practices. I help lead the code reviews for frontend development of Evolve application.
- As one of the lead UI developers, I work closely with lead UX designers and product owners to maintain UI/UX consistency across the whole Evolve application.
- I was an active member and contributor of the **GBST Design systems team.** The team is responsible for developing **reusable UI components for the whole GBST** suite of products and applications. As part of this team, I help lead the development of GBST's first Generic UI components library that is used across multiple projects and teams, which reduced development costs and sped up development times.
- As part of the Evolve project Enabling scrum team, I help develop CI-CD related tasks using Jenkins, Docker, Kubernetes and Terraform.

Itemhound Corporation, Quezon City, Philippines

Startup Co-founder and Lead Software Engineer

(August 2010 – July 2018)

As a **co-founder** and member of the management committee, I was directly responsible in assessing the feasibility and profitability of our technology services and solutions. As the lead software engineer, I headed the development of all our software applications - **from selecting the right tools and frameworks during development to the right testing and production infrastructure**. I actively collaborated in the entire process of providing services and solutions to clients, from gathering business requirements to proposing, development and delivering the best solutions. (https://www.itemhound.com)

Racer Motorsports Timing System development

- I developed a Windows desktop application that is used for motorsports timing events. The Racer Motorsports Timing System has been used by the **Yamaha Philippines Grand Prix and Yamaha Vietnam Grand Prix since 2010.** It was developed using .**NET C#**.

Redesign of Racer Motorsports Timing System

- To integrate multiple RFID readers' connection to the RACER Timing system and make it fault tolerant when connections are unreliable, I redesigned and re-architected the Racer Motorsports Timing System from a desktop application into a web application using the **MEAN stack**.
- I added a live-view scorer page, which is used alongside live video feeds of the race to produce that "MotoGP broadcast style".

Strider Marathon Timing System development

- I developed and maintained Itemhound's marathon timing system using the **MEAN stack** web development framework. By this time, most of Itemhound's tech stack has shifted to web development to **prepare our business for the 'Internet of Things' revolution** where RFID has vast applications.
- I designed the **backend API services in NodeJS** and the database models that uses **MongoDB**. I was also responsible for developing the frontend using Angular.

Goorahna events management software development

- I developed and maintained Itemhound's events management application software. Goorahna was also developed using the MEAN stack.
- I was responsible for building the backend **RESTful APIs using NodeJS**.
- I also developed the frontend admin **dashboard using Angular**.
- I also developed the Goorahna mobile applications which were written in **Javascript, JQuery, Bootstrap over Windows .NET environment and deployed to Windows mobile devices**; used for events engagement monitoring and tracking. I integrated the mobile applications with the built-in NFC readers of the mobile devices as well.

Goorahna online registration software development

- I was part of the team, composed of 3 members, that developed the Goorahna **online registration platform** (https://reg.goorahna.com/#/).
- I was also responsible for building the backend RESTful APIs using NodeJS.
- I **integrated Paypal services**, Dragonpay and Seven-Connect to **Goorahna's payment platform**.

MyRunTime web application development

- I was part of the team, composed of 3 members, that developed and maintained MyRunTime, a website that hosts the race results from Itemhound's sports timing services. This web application was initially developed using the MEAN stack.
- I developed the backend of this previous version using **NodeJS and MongoDB** for the database.
- I also helped in developing some frontend parts like the race results page, race photos page and news feed page using Angular.

- I **integrated Facebook functionality into the MyRunTime** website allowing users to sign-in using their Facebook accounts.

MyRunTime Race Official Mobile App

- In an effort to expand more races being catered by MyRunTime and to capture the small-race market (less than 500 participants), I created MyRunTime Race Official, **a mobile app entirely written in React-Native using the Expo platform** (https://expo.io/@joecris/myruntime-raceofficial).
- This mobile app is used to time small races and uses **Google Firebase** for its backend database. Race results from the MyRunTime Race Official App are also published in the MyRunTime website.

Redesign of MyRunTime web application

- I re-architected both the backend and frontend of MyRunTime (https://myrunti.me) to improve performance, usability, and maintainability.
- To cater to the growing user-base (**70,000+ users as of 2018 and over 7000+ active monthly users, 950+ races and 1.5 million race results**) of MyRunTime and to accommodate the new functionalities and features, like **Race Registration,** to be added, I redesigned the **MyRunTime monolithic app to have a microservices-approach** on the backend which was entirely written in NodeJS. I also **migrated the frontend from Angular to ReactJS** to keep up with the current frontend standards and **add technology to our company's framework stack** (**https://github.com/joecrismolina/myruntimev3**).
- I also **improved the SEO performance**, which is not straightforward for single-page web apps, of MyRunTime by using pre-rendering for crawling requests (Google, Facebook, etc.).
- I also designed the latest version with a '**mobile-first and offline-first**' approach making it **more mobile friendly** and ready to be transitioned into a **Progressive Web App.**

Other projects and initiatives

- I initiated adopting some **Agile** practices like sprint planning and daily scrums into our development culture.
- I put in place the use of **Jenkins** with the intention of improving our **continuous-integration process**.
- I proposed the use of **Digital Ocean** as the platform for our development and production servers in order for the company to **save and maximize our investments in our web servers**.
- I proposed the standard use of **automated unit and integration testing**. **Mocha** and **Chai** became a standard tool for our automated testing.
- I implemented basic standard security protocols to all our development and production servers. All of our development and web servers implement **HTTPS protocols** and use standard Ubuntu server security measures such as **SSH-only access, firewalls** among others.
- I help lead and **mentor undergraduate students** for our developer's **internship program**.

Anritsu Corporation, Kanagawa, Japan

Software Engineer, Research and Development Division
(July2007 – July2010)

- I developed, tested, and maintained digital signal processing (DSP) software for the MS269XA Signal Analyzer line of product.
- I was tasked to implement DSP software for testing of wireless communications technology like GSM, WCDMA and LTE.
- I also designed and implemented Digital Filters in **C++** and **MATLAB**.
- I translated technical specification documents and user manuals from Japanese into English.

Recognitions and Memberships

- **Japanese Language Proficiency Test (JLPT) Level 3 Passer** (Basic Business and Intermediate conversational level, Level 3 is now equivalent to N3-N4 in the new level scheme of JLPT - http://www.jlpt.jp/e/about/levelsummary.html)
- Most Innovative Business Plan Award – Philippine Emerging Startups Open (PESO) 2006
- Best Business Plan Award – Philippine Emerging Startups Open (PESO) 2006
- Wireless Communications Engineering Laboratory, UP Department of Electrical and Electronics Engineering (UP DEEE) student affiliate (2005-2007)
- UP Engineering Radio Guild (UPERG), member (2004-2007)
- La Immaculada Concepcion School - College Scholarship Recipient (2002-2005)
- Graduated Salutatorian, La Immaculada Concepcion School (2002)

Education

BS Electronics Communications Engineering
University of the Philippines, Diliman, Quezon City
(2002 – 2007)

La Immaculada Concepcion School, Pasig City
(Secondary School)

References

References are available upon request.