Richard Louie Orilla
Senior Software Engineer

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About Me

Dedicated problem solver and a researcher at heart. Kind of a person who likes to do challenging things for the sake of achievement.

Likes to explore whats new in tech, including dwelling on new programming languages. Favorite programming language is C and has already created real-time applications that is used for heavy-duty purposes using this language.

An avid fan of Linux yet explores other operating systems, including, BSD Family (Free, Open and Net), Haiku OS and even ICAROS (Amiga).

Educational Background

Masters of Science in Computer Science
[Incomplete]

De La Salle University (2017-2019)

Bachelor of Science in Computer Science

University of Mindanao (2010-2015)

Free and Opensource Software Contributor (Recent Examples)

- **DosboxStagingReplacerForGogGalaxy**
  - Created this project to replace the running Dosbox bundled on classic GOG games on GOG Galaxy to other Dosbox variants (especially Dosbox staging)
  - Programmed this on modern C++ code because of the following:
    - Planned to make a lightweight CLI application with no unnecessary DLLs needed
    - Originally planned this on Rust but I instead use the former because I want to use the actual sqlite library code instead
    - I wanted to use modern coding features while also taking advantage of the original C sqlite code

- **WINE (Wine Is Not an Emulator)**
  - Helped with bugfixes related to the portable executable port of ntdll.dll (as versus of in memory ntdll.dll) in order to make games like Street Fighter 5 work on Linux

- **Stratagus Engine - Wargus Branch**
  - Helped debug an issue related to regression in music player on version 3.3.1 basically making the game unplayable with music on

- **OpenRA - Red Alert 2 Branch**
  - Helped with several bugfixes with Red Alert 2 in OpenRA such as:
    - Incorrect speech notifications (when an enemy builds a super weapon)
    - Animation ticks fix (Some structures such as Allies Ore Refinery feel slower than the original)
    - Low powered animations (To be consistent with the original)

- **TediousJS (node-mssql)**
  - Implement feature that allows the library to support several Azure Active Directory connections

Work Experience

- ## Tech Lead - Analytics at inRiver (March 2018 - Present)
    - Design and help in implementing several interconnected systems following the microservices architecture
        - Architectural Diagrams
        - Class Diagrams
        - Entity relationship Diagrams
        - Common libraries to be shared across different systems/projects (internal and external)
        - Assistance in implementation of CI/CD infrastructure
            - Creation of Dockerfiles
            - Creation of Helm charts
            - Creation of Azure Build Pipeline files
    - Several of these systems include:
        - Semantic analysis system that can determine what product and brand is a scraped title belongs to powered by machine learning and very complex, business centric decision trees
        - System that determines the performance of a product or brand on a website base on several business specific KPIs
        - Chromium browser based plugin that can scrape data in a website, including taking browser screenshots
    - Research several new technologies such as integrating LLMs to existing functionalities, computer vision (mainly using darknet) for business feasibility.
        - Created several detailed reports about the technology stacked
        - Created cost projection and made price adjustment suggestions as well (assuming such integration has low cost overhead and is still profitable)
        - Created proof of concepts of such technologies with non-stream line integration with the said existing functionality

Skillsets

Programming Languages

- C
- C++
- C#
- Java
- Python
- Javascript
- Ruby
- Rust
- ASP
- PHP
- Golang
- Kotlin

Frameworks or Engine runtimes

- Qt Framework
- Swing and JavaFX
- Android SDK
- NodeJS + Express
- Ruby on Rails
- Flask
- FastAPI