

Efai De Leon, Computer Engineer

711 West Beach Ave, Inglewood, CA 90302 | (310) - 773 - 2645 | efaideleon@gmail.com |
<https://www.linkedin.com/in/efai-de-leon-176481240/> | <https://github.com/Efai-De-Leon/Portfolio>

EXPERIENCE

Personal Unity Projects | C#

12/2022 - 10/2023

- Applied Object-Oriented Programming (OOP) SOLID principles to enhance code maintainability and extensibility.
- Integrated 3 design patterns (factory, observer, singleton) to reduce code coupling and improve debugging.
- Developed game mechanics, character controllers, and 3D graphics to craft straightforward games.

SQL Databases Projects

03/2020 - 06/2020

- Crafted 40+ complex SQL queries for data extraction, filtering, and calculations.
- Constructed 5 databases that reflect the relationships between different attributes of complex data models.
- Experience with designing and developing databases in both Mysql Workbench and SQLite3 command line tools.

Django Web Application Project | HTML/CSS, Python

09/2019 - 03/2020

- Collaborated with a team of 4 to develop a customized Django web application catering to the IoT-agriculture sector.
- Developed 4 web pages (landing, account creation, main board, and graphs) along with 6 live widgets for intuitive visualization of the incoming sensor data within a span of 6 months.
- Deployed and updated the application online for 4 months using AWS Elastic Beanstalk, ensuring continuous operation.

CMOS Circuit Design Project

09/2019 - 12/2019

- Executed standard cell techniques to design and integrate NMOS/PMOS transistors into complex sequential logic circuits.
- Leveraged Cadence software to develop and assess 20+ electronic schematics such as multiplexers and counters.
- Designed and implemented a 4-bit full adder and subtractor with Cadence software using a standard cell approach with a runtime of 32us.

Risc V CPU Design & Implementation Project | System Verilog

03/2019 - 06/2019

- Implemented a complete RISC-V CPU with a 5-step processing cycle and 6 distinct instructions in a team of 2.
- Programmed 2 advanced features into the CPU including pipelining and branch prediction providing improved performance and reducing pipeline stalling.
- Maintained documentation, reports, and detailed graphs to track and communicate the development process over 4 months.

Lab Experiences with Electronic Circuit Analysis

01/2018 - 06/2018, 01/2019 - 06/2019

- Applied theoretical knowledge of electronics to practical applications by building real-world circuits in teams of 4+.
- Analyzed 20+ different circuits including Op-Amp, Filters, and RF with an oscilloscope and SPICE.
- Acquired hands-on experience with 25+ essential electronic components such as Diodes, Capacitors, Bipolar Junction, and Field-Effect Transistors.

Chat Application Project | C

01/2018 - 03/2018

- Designed and programmed the Graphical User Interface for a Chat Application using the GTK library, encompassing contact lists, message interface, account creation, and pop-up windows within a 9-week deadline.
- Collaborated with a team of 4 on GitHub, coordinating code contributions, reviewing pull requests, and resolving merge conflicts to maintain a smooth and efficient development process.
- Established efficient team communication protocols using Discord with two dedicated channels (front-end and back-end), ensuring seamless collaboration and improving the development process.

EDUCATION

University of California Irvine
Bachelor of Science in Computer Engineering
GPA 3.182

09/2016 - 12/2020

SKILLS

C 2 years, C++ 1 year, Java 3 months, C# 1 year, Python 1.5 years, System Verilog 4 months, Bilingual Spanish (native) English (fluent), HTML/CSS 1 year, Unity 1 year, SQL 7 months, Django 8 months