DYLAN JAMES WRAITH

San Diego, CA • 619-971-9054 • dylanwraith@gmail.com
GITHUB / LINKEDIN: github.com/dylanwraith/ • linkedin.com/in/dylanwraith/

EDUCATION – SAN DIEGO STATE UNIVERSITY

Degree: Computer Engineering, Bachelor of Science
Personal Achievement: Dean's List for College of Computer Engineering (Spring 2017 – Sprint 2019)
Graduation Date Expected: Spring 2020
GPA: Engineering - 3.45 Overall - 3.33
Coursework: Web Programming (C#) • Database Management (SQL) • Windows Programming (C#)
Object Oriented Programming (C++) • Data Structures (C++) • Embedded Systems Programming (C)
Assembly Language (ARM) • Digital Circuit Design (Verilog) • Microprocessor Design (Verilog)

WORK EXPERIENCE

Hologic Inc, San Diego, CA

Software Engineer – R&D Diagnostic Instrumentation – August 2019 to Present

- Continue handling responsibilities of previous role

Software Engineer Intern – R&D Diagnostic Instrumentation – May 2019 to August 2019

- Worked in a team of three that utilized **Jira** for scrum / agile management and **GitHub** for source control. Practiced **Agile Software Development** methodologies to plan and implement a software management tool used by the Software department that allowed them to measure software team performances and metrics using JIRA data.
- Used **Angular 8** while implementing **Material Design** throughout user-interface of software tool
- Hosted server using **ASP.NET Core** wrapped with **Electron.NET** for **cross-platform** capability
- Retrieved data via **Jira API** using **JQL** to produce charts based on software team performance
- Utilized **RESTful API** for live data processing and communication between client and server
- Implemented **real-time updates** through use of **websockets** for large API queries using **SignalR**

PROJECTS

Employee Management System – Group Project

- Handled majority of the **backend** methods while utilizing a **local database** to manage employees
- Use of **C#** to create **GUI** for employee management system, including schedules and clockin/outs
- Utilized **Newtonsoft** library to read and write **JSON** files to create and save sensitive data
- Link program to **Google API** for secure log-in of employees, managers, and admin accounts

Poker Simulation – Group Project

- Implemented **data structures** such as a stack for the dynamic deck to create poker simulation
- Used **classes** for objects such as players, decks, and cards for later use in game engine
- Developed program for **unit-testing** to ensure correct output of program consistently

Temperature Alarm System – Group Project

- Using **PIC microcontroller** and sensors, built alarm system responsive to temperature changes
- Utilized the **C** programming language in **real-time embedded systems** environment
- Developed multi-functional interactive **user-interface** reactive to hardware and software changes

Rubber Band Shooting Drone – Group Project

- Used **RaspberryPi** as flight controller, built drone controllable via wi-fi host-client communications
- Use of Boost.Asio library for **transmission control protocol**, enabling wi-fi connection to drone
- **Pulse width modulation(PWM)** used to control acceleration and deceleration of drone

Address Book – Solo Project

- Implemented a **binary search tree** in **C++** programming language to create interactive address book
- Ability to add, look-up and change addresses by traversing, inserting, and deleting nodes in tree

SKILLS

Software Technologies: ASP.NET Core, Angular 8, Electron.NET, Material Design, RESTful API
Software Concepts: Agile Software Development, Source Control, Real-Time Development, Unit-Testing
Software Language Experience: C#, TypeScript, HTML, SCSS, C++, C, JAVA, Python, Verilog, ARM
Software Development Environments: GitHub, Jira, Sourcetree, Visual Studio 2019, VSCode, Vivado