

Jackson Wheeler

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Passionate and experienced software engineer with deep understanding and practical experience in **backend**, **frontend**, **embedded**, and **networks**. Senior university student, with **8 months of experience at Sony**, who leverages strong technical & interpersonal skills to deliver solutions that matter.

EDUCATION

University of California, San Diego <i>B.S. Computer Science - CSE GPA: 3.86</i>	Fall 2020 – Fall 2024
Yonsei University, South Korea <i>Exchange Program (Courses: Compiler Design, Computer Vision, Korean Lang.)</i>	Summer – Fall 2022

WORK

Sony Electronics <i>Software Engineering Intern (San Diego, CA)</i> CMS Database Wrapper (Go, PostgreSQL) <ul style="list-style-type: none">Implemented reverse synchronization between databases, converting items while handling complex mappings HTML Video Synchronization (JavaScript) <ul style="list-style-type: none">Developed server & client code to synchronously provide & play HTML videos on multiple web clients Web Page Development (Vue/Vuetify) <ul style="list-style-type: none">Developed multiple external web pages to satisfy needs of various teams: INZONE Buds showcase, Sketchfab download page, Olivia Rodrigo X LinkBuds S collab mobile pageRedesigned web page on embedded device to be cleaner, more user friendly, and implemented feature allowing sequences of test commands to be created, saved, exported, and imported	July 2023 - Present
Marine Corps Tactical Systems Support Activity <i>Software Engineer Intern (Camp Pendleton)</i> <ul style="list-style-type: none">Researched strategies to automate testing on Marine Corps systemsDeveloped & implemented Java code to begin automated testing of a military Windows application. Reads test input data from CSV and utilizes application's UI to plot friendly/enemy tracks.	Summer 2021

PROJECTS

Automatic Plant Watering System - Server & Architecture (Python, SQL) <ul style="list-style-type: none">Designed & implemented system architecture. In-plant watering MCU ↔ Raspberry Pi Server ↔ mobile appImplemented API server & SQL database on Raspberry Pi.Implemented Port forwarding for constant SSH access, Ngrok service for public API endpoint	Fall 2024
Microcontroller Firmware (C) <ul style="list-style-type: none">Developed microcontroller to notify user via bluetooth whenever it is “lost” (left stationary for X time)Wrote multiple firmware drivers from scratch, refactored to minimize power consumption	Fall 2024
IoT Project - Embedded Team (C++) <i>Arduino Board</i> <ul style="list-style-type: none">Deployed code to 25 IoT Arduino boards for data collection in UCSD's Fitness Center during May 2023Implemented BLE & WiFi capabilities on embedded device, with HTTP API calls to	Spring 2023
ChatGPT Console App (C#) <i>.NET core</i> <ul style="list-style-type: none">Developed .NET core console application allowing chatting with ChatGPT in real time via OpenAI API	May 2023
Network Router Implementation (C) <i>Networking Protocols: Ethernet, ARP, IP, ICMP</i> <ul style="list-style-type: none">Developed code to accurately & efficiently route and send incoming packets to the next step in the network.Improved efficiency by implementing custom data structures	March 2023
Team: San Diego Zoo Exhibit Navigation App (Java) <i>Android Studio, Agile</i> <ul style="list-style-type: none">Developed application to direct users on customizable tour of the San Diego Zoo, based on desired exhibits	Spring 2022

SKILLS & OTHER

Languages: Go, C, Python, JavaScript, Java, PostgreSQL; C++, C#; HTML, CSS; Bash; Haskell
Tools: MCUs, Raspberry Pis, Arduino; APIs, pgAdmin, Linux, Docker, Virtual Machines; Vue/Vuetify
Former T3/SECRET Security Clearance Holder
Korean Language Conversational Fluency