GIOVANNI **CORNEJO**

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A computer engineer passionate about implementing and discovering new applications of engineering. I consider myself a valuable partner in group settings due to my exceptional time management skills, quick-thinking, and communication. Samples of my work can be viewed on my website or on request.

EDUCATION

AUG 2019 - MAY 2023

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING, UNIVERSITY OF FLORIDA

Cumulative GPA: 3.62/4.00; *cum laude*

WORK EXPERIENCE

PUBLIX SUPER MARKETS, FRONT SERVICE CLERK

SEP 2021 – JUL 2023

Provided premier customer service. Applied effective communication under pressure and in a fast-paced environment. Proactive in decreasing shrinkage and meeting front-end needs by maximizing team performance. Maintained professionality and efficiency while engaging with community members.

UNIVERSITY OF FLORIDA, TEACHING ASSISTANT

FEB 2023 – MAY 2023

Performed data entry tasks on student homework, labs, and projects. Fostered a positive learning environment while answering questions. Provided supportive criticism of student work. Monitored student progress and assisted in accomplishing established learning objectives. Analyzed the efficacy of materials taught based on student performance.

KNACK TUTORING, TUTOR

NOV 2020 – JUN 2021

Explained math and computer science concepts in an encouraging and friendly environment with a 5/5 rating. Offered unique lesson plans catering towards individual needs to increase performance. Subjects tutored are Analytic Geometry and Calculus 1 & 2, Elementary Differential Equations, Computer Programming Using Java, Programming Fundamentals 1 & 2.

PROJECTS

QTune: Automatic Guitar Tuner

Utilizing an Adafruit Feather RP2040 with CircuitPython, created a tuner that can analyze the frequency of guitar string vibrations with an accuracy within ± 0.5 Hz via piezo sensor and intelligent circuit design. Instant adjustments are done using servo motors attached to each tuning-peg. The device is enclosed in a 3D-printed case including a user-friendly UI.

MIPS-like Processor

Designed, simulated, and implemented a simple 32-bit microprocessor with an instruction set similar to MIPS for the DE-10 Lite Field Programmable Gate Array board using the VHSIC Hardware Descriptive Language.

Memory Management & Layering

Designed a custom Memory Manager application in C++ for a Linux-based operating system capable of secure and efficient allocation/deallocation of memory while providing details of its state. Made use of layering to facilitate the implementation of recognized standards by separating hardware and OS-specific implementations from generalized API calls.

Embedded Assembly and Embedded C

Used the ATxmega128A1U low-power, high-performance microcontroller in coursework for topics such as system clock configuration, pulse-width modulation, data processing, digital-to-analog converters, and Direct Memory Access. Created a functional piano synthesizer keyboard using a computer keyboard and the USART, DMA, and DAC systems.

SKILLS AND ABILITIES

Fast learner eager to discover and research new topics
Proficient in: C, C++, Rust, Assembly, Python, MATLAB, Java, HTML, CSS, JavaScript
Understanding of interactive and responsive web design
Experienced in Linux kernel, OS, embedded systems
Competent in microprocessor applications and circuits
Able to contribute effectively throughout the SDLC
Knowledge in SQL and database management
Math skills in calculus and differential equations
Adaptive to new tools and programming paradigms
Good understanding of back-end web development
Highly organized, technical, and efficient
Ability to work independently or part of a team
Proficient in code management and version control