LUIS VARGAS

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EDUCATION

University of Central Florida
Expected Graduation Date: May 2022
Bachelor of Science in Computer Engineering

RESEARCH EXPERIENCE

Terahertz Integrated Circuit Lab — Undergraduate Research Assistant
Feb 2021 - Present

- Developed, implemented, and integrated control software for motors resulting in automation of motion resulting in increased accuracy and control. Currently in use in experiment settings
- Assisted Graduate-level researchers with software development for automation of millimeter-wave function generators, oscilloscopes, and signal analyzers for data production and collection
- Assisting Graduate-level researchers in completion of experiments using broadband silicon-based THz integrated circuits.
- Assisting with implementation of proof-of-concept experiments for real-time computing/imaging based on low power millimeter-wave and THz sensors.

PROJECTS

Pick Pocket Tuner — Senior Design Capstone Project — *Language(s) used: C & Python*
- Worked as project lead within a Computer & Electrical Engineering team to develop software that properly displays the tuning information using the Fast Fourier Transform to automatically tune a guitar.
- Tested hardware and software performance to accomplish automatic tuning leveraging hardware and software specific tests.

Book Order Website — *Language(s) used: PHP, MySQL, HTML & CSS*
- COP4710 Course Project to implement a Book Ordering Website by utilizing a MySQL database.
- Assisted in implementing frontend webpages for the different end-user views, while integrating the necessary backend information in PHP and MySQL.
- Implemented, tested, and debugged pages to handle user registration and modification, as well as book order creation, deletion and editing.

Small Radar — Junior Design Individual Project — *Language(s) used: C/C++*
- Utilized echolocation and Doppler Effect principles to aid in determining varying distances from point of origin to objective.
- Implemented the NodeMCU 8266 board as the driver/controller board while writing custom software to display the distance from object to radar on the console output through usage of circuit design and embedded systems concepts.

Private Notes App — *Language(s) used: Swift*
- COP4331 course project to design and implement user authentication, permanent data storage, and multiple users in an interface through the FireBase API to create a private notes application.
- Completed technical documentation based on concept of operations, software requirements, hardware requirements, application test design, implementation, and results.

SKILLS

- Bilingual in English & Spanish
- Technical writing
- Circuit design and implementation
- Surface mounting components

- Relational Database Management
- Technical troubleshooting and problem solving
- macOS, Windows, Linux

- C/C++, Python, Java, and Git for version control
- SQL/MySQL
- PHP, Bootstrap, HTML, CSS
- Arduino, Raspberry Pi, NodeMCU, and TI-Launchpad

PROFESSIONAL EXPERIENCE

Apple Inc., — Tier 1 Mac + At-home Advisor
March 2018 – March 2021
- Provided thorough technical support, problem resolution, and mentoring for both customers and newly hired personnel while remaining up to date on latest technologies and solutions applicable to company products.
- Utilized internal ticketing system to manage, track, and process actions taken on customer accounts, passwords, and/or products while documenting support resolutions.
- Identified and resolved technical issues with a variety of internal diagnostic tools, strong verbal and interpersonal skills during all customer interactions.
- Managed incoming and outgoing call flow while responding to the technical support needs of customers while managing customer expectations and experiences to a high degree of Customer Satisfaction (CSAT).
- During the 13-month period of February 2020 to March 2021 I exceeded company average CSAT score of 80% by maintaining an Advisor CSAT score of 100% and Customer CSAT 88.61%.
- During Fiscal Year 2020 I exceeded company average CSAT score of 85% by maintaining an Advisor CSAT score of 96.08% and a Customer CSAT score of 88.35%

Tuscany Eyewear — Software Engineering Intern
- Increased company efficiency by migrating existing inventory tracking system to a robust database.
- Created a streamlined workflow to facilitate the creation of an e-commerce storefront thereby increasing overall sales.
- Worked directly with the lead Web Developer to implement desired changes in company databases for simplifying the day-to-day operations of all employees.

Friedland & Associates P.A. — Legal Assistant
Jan 2014 - Dec 2014
- Supported case preparation by updating executive summaries through up-to-date maintenance of medical costs and figures regarding each client's case.
- Streamlined communications between multiple departments by creating an easily accessible, update-able data table to catalog all open, pending, settled, and disbursed cases.
- Assisted in the monetary disbursement process by negotiating a reduction in all associated and relevant costs accrued by the clients through direct contact with the varying providers involved in the cases.