Christopher P. Vasquez

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EDUCATION

Louisiana State University (LSU), Baton Rouge, LA **May 2023**
Master of Science, Electrical Engineering *GPA: 4.0*
Bachelor of Science, Computer Engineering
Bachelor of Science, Computer Science

Related Coursework: Computer Architecture, Multiprocessor Programming, GPU Programming

EMPLOYMENT

Research Assistant (CPU/GPU Acceleration with R) **January 2022 – Present**
Louisiana State University, Baton Rouge, LA
- Assisted with the development of a statistical, server-side application funded by the National Science Foundation
- Researched and implemented CPU acceleration for R package (MLMA)
- Researched and implemented GPU acceleration with LightGBM for R package (MMA)

Software Engineer (iOS with Swift) **July 2021 – December 2021**
Louisiana State University, Baton Rouge, LA
- Assisted in developing a mobile, contact tracing application funded by the National Institute of Health
- Developed the Bluetooth connectivity aspect of the app under the scrum development process
- Implemented a custom version of the Herald Project API to improve contract tracing

Software Engineer Intern (Arduino) **May 2021 – August 2021**
Runatek, Dallas, Texas
- Worked on developing the software for a biomedical opioid device known as the SOTIRAS.
- Team leader for the software development of the feedback control loop system of device
- Programmed an Arduino NANO with sensors and actuators to monitor and maintain proper opioid levels

Research Assistant (HPC with Python) **December 2020 – December 2021**
Louisiana State University - Center for Computation & Technology, Baton Rouge, LA
- Worked on an open-source HPC Python project (CMR Project) funded by the National Science Foundation
- Implemented an automated package manager into the project to better handle the building of coastal software
- Designed a plug-in feature to improve the modularity of importing models into the software

SOFTWARE PROJECTS

Personal Website (Javascript with React.js) September 2022 – Present
Augmented Reality Training Application for Composite Manufacturing (Unity with C#) August 2021 – Present
Shift Reduce Parser Application (Python) February 2022
Book Rental Application for Mobile Devices (Flutter with Dart) August 2021 – December 2021
Movie Recommendation System (Python) January 2021 – April 2021
Database System for Flight Delays (SQL) January 2021 – April 2021
Transaction System Utilizing Multicore Programming (C++) January 2021 – April 2021
Encoder & Decoder via Huffman Coding (ARM ASM) July 2020
Motion Sensor Traffic Light via FPGA (Verilog) October 2019 - November 2019

SKILLS

Languages: C++, C, C#, Python, Java, Javascript, Swift, Dart, R, SQL, ARM, MIPS, Arduino, MATLAB
Software Technologies: Docker, Git, React.js, Unity, Jupyter Notebook, Flutter, Sparx Enterprise Architect, Asana, JIRA
Other: Bash, Verilog, HTML, CSS, Visual Studio, PyCharm, R Studio, Vim, Xcode, Linux, Windows, MacOS

ACTIVITIES

LSU Center for Computation & Technology, LSU Ogden Honors College