Jesus R. Rijo Candelario

U.S. Resident | 470-629-4096 | rijo.candelario.jesus@outlook.com | linkedin.com/in/jesus-rijo-candelario | github.com/jesusrrc

Education

Mercer University **August 2019 -- May 2023**

B.S. in Computer Science, B.S. in Mathematics *GPA: 3.92 / 4.00*

- **Relevant coursework:** Capstone software engineering (Git CI/CD, Agile, SDLC, and REST APIs), operating systems, computer networks (socket programming and TCP/IP), linear algebra, mathematical modeling, and probability/statistics.
- **Academic Awards:** President's List for 6 semesters, Dean's List for 2 semesters, Outstanding Junior in Mathematics Award, Riley Plymale Senior Award in Mathematics, and Eugene Bell Senior Award in Computer Science.

Work Experience

Undergraduate Research Assistant **Mercer University** **August 2022 -- Present**

- Solved incoming tickets involving a graphics/VR project with **Oculus Rift** and **Vizard** for surgical trainings.
- Devised a customizable highlighter to interact and identify organ models using **OpenGL** and **GLSL**.
- Implemented a model parser in **C** to convert OSGB/OSGT 3D models into STL files at runtime.

Software Engineering Intern **Columbus State University** **May 2022 -- July 2022**

- Created a **Python** web crawler with **Beautiful Soup** and **Requests** to retrieve and store over 2000 IoT privacy policies.
- Implemented an ETL pipeline with **Pandas** to clean and tokenize privacy policies for a **spaCy** NLP framework
- Used **Scikit-Learn** to perform readability assessment and topic extraction across all privacy policies
- Published our final results and codebase at the 2022 REUNS, 2022 SoCon SURF, and IEEE Xplore.

Undergraduate Research Assistant **Mercer University** **May 2021 -- July 2021**

- Researched and surveyed over 50 academic sources on the key applications of set theory in computer science.
- Implemented containers not found in the **C++ STL** and compared their efficiency to **Boost's** implementations.
- Wrote a technical report outlining common uses of set theory in data structures with **LaTeX**.

Precalculus Teaching Assistant **Mercer University** **August 2020 -- May 2021**

- Led two mandatory weekly study sessions for undergraduate precalculus students.
- Helped senior lecturers prepare additional course materials with **LaTeX** and **Octave**.

Skills

- **Languages (Proficient):** C, C++, Java, Python.
- **Languages (Familiar):** Bash, C#, Go, HTML5/CSS/JavaScript, Perl.
- **Tools:** Git, GitHub, UNIX/Linux, CMake, JSON, PostgreSQL, MongoDB, VMWare, Wireshark, Zenmap.
- **Frameworks/Libraries:** .NET, Pandas, NumPy, SciPy, Matplotlib, AWS Transcribe, OpenGL, OpenMP, MPI.

Projects

NSF Database Project (Capstone Project) **September 2022 -- January 2023**

- Used **REST JDBC** to retrieve and display information about each subject through a **Java Swing** GUI.
- Created a CI workflow in **GitHub Actions** using **Maven** to build and test the project.

The MiniBLAS Library **February 2022 -- (Present)**

- Implemented a serial linear algebra library in **C++/Fortran**, including operations not found on **Netlib's BLAS**.
- Developed distributed and multithreaded equivalents of these subroutines using **OpenMP** and **Open MPI**.
- Used **Cron** jobs and **Bash** scripts to assess the library's functionality and performance in **AWS ParallelCluster**.

Optimal Meal Planner App **January 2022 -- (Present)**

- Maintained a local relational database managed with **PostgreSQL**, containing nutritional facts for over 1000 fast-food items.
- Developed a **C#/.NET** app to display the database and process SQL queries locally.

Activities

- **Academic societies:** Phi Beta Kappa, Upsilon Pi Epsilon (computing/IT), and Pi Mu Epsilon (mathematics).
- **Academic club:** Mercer University's Binary Bears (CCSC/ACM programming competitions).