Benicio Enriquez

benicio.m.enriquez@gmail.com
(360)726-1540
Grand Rapids, Michigan

Summary

Computer programmer for over 11 years, with a particular interest in ML, robotics and Generative AI. Graduate from Calvin University with a degree in Computer Science. Currently searching for a role in software engineering to continue my career.

Links > https://www.linkedin.com/in/benicio-enriquez-37a093254/ > https://github.com/BenicioEnriquez

---

Work Experience

ML Researcher

Project Morpheus · Grand Rapids, MI 08/2023 - Present

- Independent research project under Dr. Harry Plantinga's advisement
- Exploring the usage of novel StreamDiffusion + ControlNet + AnimateDiff as a real-time rendering pipeline
- Utilizes ONNX runtime and Microsoft Olive for ML graph optimizations to achieve real-time performance
- Planning to incorporate optical flow estimation for frame interpolation and superresolution
- Initial prototype can be found here - https://github.com/BenicioEnriquez/RealtimeNeuralRenderer
- Soon to be open sourced

ProServe Consultant Intern

Amazon Web Services · Seattle, WA 05/2023 - 08/2023

- Worked for a total of 480 hours during a 12 week internship
- Employed Agile software engineering practices
- Assigned to a time sensitive project as a solo intern
- Utilized python, node.js, and C during internship duration
- Worked with project stakeholders to understand requirements
- Developed scripts to migrate a proprietary XML format into Markdown by parsing via regular expressions
- Successfully migrated 15 repositories of documentation crucial to AWS (>300,000 downloads in 2022)
- Received and employed feedback from mentors and managers
- Prepared for and received AWS Solutions Architect certification

Resident Assistant

Calvin University · Grand Rapids, MI 08/2023 - 05/2024

- Supervisor of over 40 student residents
- Fostered a positive and inclusive community environment
- Resolved conflicts and conducted floor meetings for open communication
- Ensured safety and enforced residence hall policies
- Acted as a first responder during emergencies
- Maintained effective communication with residents and staff
- Set a positive example for residents and demonstrated professionalism
- Documented interactions, incidents, and resident concerns

Projects

SpotOn

- Mobile application for generating intelligent playlists from any text prompt powered by an LLM
- Ultilized a sophisticated pattern recognition system in conjunction with Llama 2 7B to generate song canidates

- Interfaced with the user's Spotify account for seamless playability and transportability
- Built using reactJS, Expo, and mySQL
- Cross platform - Android, iOS, Web
- Currently unreleased to any platform, but code is open source
- https://github.com/CS262-C-Spot-On/SpotOn-client

BEE - Benny's Extraordinary Executer
- Custom-built compiler from scratch
- Easy to understand statically typed language
- Designed and constructed in less than 24 hours
- Leverages LLVM and Clang, similar to other modern languages such as Rust and Swift
- Includes support for base types, operations, functions, arrays and strings
- Awarded 2nd place at 2023 Calvin Hacks as a solo project
- Completely open source - https://github.com/BenicioEnriquez/BEE

Education

BCS - Computer Science
Calvin University · Grand Rapids, Michigan 04/2024
- Graduated with a 3.6 GPA
- Received multiple scholarships and awards throughout the duration of my education, including the Trustee's Scholarship, Entrada Scholarship, and the Mosaic Award
- Participated in multiple extracurriculars, including: Social Events Team, Dance Guild, Intramural Volleyball, Engineering Unlimited, Google Developer Club, Abstraction CS Club, Calvin Hacks (1st and 2nd prize winner)

AA - General Studies
Clark College · Vancouver, Washington 06/2022
- Participated in Running Start during high school (dual credit program)
- Graduated with Honors (3.89 GPA)

Skills

Previous Areas of Independent Study+Practice:

- Flutter/React web app design
- ATmega328 (Arduino and custom boards)
- Worked with RaspberryPi + ESP32 variations
- Inter board/chip communication (wired and wireless)
- Custom PCB design and assembly (KiCad + JLCPCB)
- Work with motor controllers + PID Calibration
- Machine Learning (PyTorch, ONNX)
- Graphics (Vulkan, OpenGL, OpenCL, CUDA)
- Computer Vision (OpenCV, Open3D)
- Inverse Graphics/Scene Reconstruction (SfM, NeRF, SLAM, Gaussian Splatting)
- Compilers/Languages (LLVM, Flex, Bison, Clang)

High proficiency in numerous programming languages, including:
- C, C++, Rust
- C#, Java
- Python, Javascript