Devon Gardner

github/devon-g | dgardner365@gmail.com | 941-358-1887 | linkedin/devon-gardner

---

EDUCATION

Bachelor of Arts in Computer Science at New College of Florida – 4.0 GPA | Aug 2020 – May 2023
Honors Thesis – Exploring Robot Kinematics: an Engineering Approach

COURSES & SKILLS

Courses: Software Engineering, Object Oriented Design, Machine Learning, Computer Architecture, Embedded Systems
Programming Languages: Python, Bash, C++, C, Java, TypeScript, JavaScript, C#
Software Technologies: Linux OS, Git, Docker, Nix, Agile/SCRUM, Neovim, GDB, Arduino, ReactJS, ROS

RELEVANT WORK EXPERIENCE

Neovim – Open Source Contributor | 09/10/24 – Present

- Identifies and investigates high impact C code defects using Coverity Scan platform
- Collaborates with other maintaners of the project through Github pull requests ensuring quality of fixes
- Creates clean and concise git history through a git rebase workflow

New College of Florida – Teaching Assistant | 08/23/22 – 12/06/22

- Taught students computer architecture concepts in small group format over 30+ office hour sessions; graded 100+ project submissions; handled integrity violations; improved course teaching materials; oversaw workshops

UofSC Center for Computational Robotics – Research Assistant | 05/29/21 – 08/13/21

- Produced training dataset of underwater cave structures for robotic cave diving computer vision project
- Wrote Python script to ensure dataset quality by automating correction and culling of class labels
- Trained proof of concept YOLOv5 object detection model to classify structures with 82% mean average precision

RELEVANT PROJECT EXPERIENCE

Rusterizer | 02/01/23 – 04/20/23

- Built computer graphics rasterization library to render user-defined 3D scenes using Rust
- Generated 2D images from object models using linear transformations and interpolation

WidowX 200 Robot Arm Control Architecture | 08/23/22 – 05/12/23

- Applied linear regression to produce Gaussian mixture model-based motion primitives
- Evaluated performance of 5 motion primitives using root mean square error
- Utilized forward and inverse kinematics to convert between 3D coordinates and joint angles
- Communicated with robot arm through custom C++ DynamixelSDK wrapper and ROS2 framework

From Nand to Tetris | 06/18/22 – 07/18/22

- Built 16-bit Hack CPU and RAM from ground up using only NAND logic gates
- Designed and created logic gates and functional 16-bit Arithmetic Logic Unit in Minecraft
- Implemented assembler capable of supporting symbols and labels to generate machine language

Red Tide Dashboard | 04/22/22 – 05/20/22

- Architected and implemented full-stack web application in Agile/Scrum team of three to produce ReactJS dashboard, aggregating 50,000+ data related to red tide
- Leveraged Twitter, YouTube, and Spotify APIs; built Express and MongoDB backend; deployed app on AWS
- Conducted sentiment analysis on Twitter data using nltk and scikit-learn libraries

OTHER EXPERIENCE

Jaguar Sarasota – Service Valet | 08/20/23 – Present
New College of Florida – Computer Science Tutor | 02/23/23 – Present

- Troubleshoots student projects and provides strategic direction; has achieved 100% student satisfaction rating