Devon Gardner

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

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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

EXPERIENCE
Jaguar Sarasota – Service Porter | 40 hours per week | 08/20/23 – Present
- Receive customers and guide them to the correct department
- Transport customers and vehicles to and from residences and service drive
- Collect and distribute loaner vehicles through digital contracts

New College of Florida – Computer Science Tutor | 5 hours per week | 02/23/23 – Present
- Troubleshoots student projects and provides strategic direction; has achieved 100% student satisfaction rating

New College of Florida – Teaching Assistant | 10 hours per week | 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 | 40 hours per week | 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

State College of Florida – Supplemental Instruction Specialist | 20 hours per week | 10/20/19 – 08/16/23
- Demonstrated application of programming concepts to tutees; taught Python, Java, and C++ syntax
- Synthesized concepts from Mathematics, Physics, and Chemistry; identifies student weaknesses; guides students through problem solving process

Pier 1 Imports – Store Associate | 20 hours per week | 06/28/20 – 08/28/20
- Unloaded and sorted weekly merchandise shipments
- Assembled and displayed large furniture in showroom

PROJECTS
Neovim – Open Source Text Editor | 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

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

RELATED COURSES & SKILLS
Courses: Software Engineering, Object Oriented Design, Machine Learning, Computer Architecture, Embedded Systems
Languages: C++, C, Python, Java, Rust, TypeScript, JavaScript, C#
Technologies: Git, Linux OS, Neovim, Docker, GDB, radare2, Arduino, Agile/SCRUM, ReactJS, ROS