Pranav Sharma

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I'm a creative programmer in pursuit of a deeper sense of fulfillment in my work. I'm passionate about robotics and computer vision and have industry and academic experience in the fields. I aspire to see and interact with my work in an interesting, cutting-edge product which may benefit society in an impactful way. I hope to be afforded that opportunity at a company that aligns with my ideals for a prosperous future.

Computer Science Skills

Languages: C++, MATLAB, C#, Java, Python, JavaScript, HTML, CSS

Software: Git, ROS, OpenCV, Unity, Unreal Engine, Electron, Android Studio, React Native

Design Skills

CAD, Figma, Photoshop, Illustrator

Hobbies

3D Modeling & Printing, Embroidery, Sewing, Sculpting, Whittling, Snowboarding, Diving

Academic Achievements

2020 - UCF Cum Laude

2017 – UCF Provost Scholar, HS Salutatorian

EDUCATION

UNIVERSITY OF CENTRAL FLORIDA

Computer Science BS | 4.0 Major/3.9 Overall GPA

- Mathematics Minor, Intelligent Robotic Systems Minor
- Relevant Courses: Robot Vision, Robotic Systems, Artificial Intelligence, AI for Game Programming

EXPERIENCE

MICROSOFT

Redcley C++ Developer Contractor | Windows Servicing & Delivery | January 2024 - Present

- Employed by BroadPoint Group/Redcley for Microsoft's WSD group to work where help is needed
- Write, test, and deploy bug fixes, and comprehensively test new feature development to find new bugs

Software Engineer | Windows Wi-Fi | July 2020 - May 2023

- Onboarded new test lab, automated C# tests to reduce cost of manual testing, and expanded test coverage
- Refactored C/C++ codebase to use modern constructs and improve security, simplicity, and readability
- Diagnosed and debugged issues found by customer bug reports, security consultants, and static analysis

LOCKHEED MARTIN

UCF Student Software Engineer Contractor | Embedded Systems | Sept 2019 - January 2020

- Scratch built graphical tool to parse, visualize, and analyze sensor telemetry from CSV data using Matlab
- Simulated and benchmarked asynchronous local data transmission between systems using C++

Software Engineer Intern | Modeling & Simulation | June 2019 - August 2019

- Scratch built graphical interface to generate simulation scenario configuration files from user input using GUI framework Electron, written in HTML, CSS, and JavaScript
- Upgraded C++ simulation framework to parse config files, enabled multithreading to improve performance

UCF Student Software Engineer Contractor | Applied Research | Sept 2018 - May 2019

- Built, calibrated, and tested drone systems with radio, flight controller, and a camera and NVIDIA Jetson AI vision system in the lab and field, using OpenCV, ArduPilot, and Wireshark, and coding in C++
- Developed UAV mission planning Android app and drone-station communication link using Android Studio, Google Protocol Buffer, ZeroMQ, Boost C++ Libraries, and MavLink, written in Java and C++

GROUP PROJECTS

Robotics Software Development | E-Goat | UCF CS Senior Design | Spring 2020

- Created an autonomous lawnmower working alongside electrical and mechanical engineering teams
- Developed and tested simultaneous localization and mapping, line following, and path planning algorithms with LiDAR and camera sensing in high-fidelity simulations using the Robot Operating System and Gazebo, deployed on an NVIDIA Jetson Nano-powered robot, written in Python

Full Stack Game Dev | Court of the Crimson King | UCF Game Design | Fall 2019

- Created a 2D roguelike turn-based RPG set in procedurally generated dungeons leading to progressively difficult levels populated with NPCs capable of chasing and battling the player, developed with Unity/C#

Full Stack Game Dev | Scary Maze | UCF Processes of OOP | Spring 2019

- Developed a 3D first-person horror game with attacking AI enemies throughout a dark, randomly generated maze with consumable torch dynamic lighting built using Unreal Engine in C++

Front-End Design/Dev | Good Deed | HackGT - Georgia Tech Hackathon | October 2018

- Designed and developed a mobile application to connect people with organizations offering volunteer opportunities in a social media-like form, written with React Native in JavaScript