Reid Merrell

(385) 450-6536 · r4merrell@yahoo.com
reid-merrell.dev/ · reid-merrell.dev/linkedIn

EDUCATION

Brigham Young University   Dec 2025
Bachelor of Science: Computer Science   Provo, UT
Minor in Mathematics
- GPA 3.97
- Relevant Coursework: Intro to Robotics & Autonomy, Intro to Artificial Intelligence, Image Processing, Computer Graphics

Arizona State University   Mesa, AZ
- GPA 4.00
- Dean's List 2021
- Relevant Coursework: CADD and Solid Modeling, Electrical Fundamentals

PROJECTS

Duckiebot   Sept-Dec 2025
- Learned the fundamentals of software development in a ROS environment through practical experience.
- Developed and debugged software to navigate a city using Duckietown Shell and ROS nodes.
- Calibrated the robot's camera and motors for accurate readings and movement.
- Applied forward and inverse kinematics functions to estimate the robot's location.

Maze Solving Robot   Oct 2024
github.com/rukar4/BayesFiltering
- Created a Bayes filtering algorithm to localize a robot in a simulated maze.
- Tuned value iteration to entice the robot to progress to the goal while avoiding obstacles.
- Allowed the robot to solve mazes with varying sizes, sensor noise, and movement uncertainty.

Ray Tracer   Feb 2025
github.com/rukar4/RayTracer
- Created a command-line program to render .ppm images from .txt files using ray tracing.
- Implemented collision detection on objects in a scene through rays.
- Used camera transformations and projections to render an image of a provided scene.

EXPERIENCE

Brigham Young University, Office of Information Technology   May 2023-Present
Computer Programmer II   Provo, UT
- Debugged 30+ incidents that required tracing problems through complex networks of systems.
- Developed APIs and events for communication across system interfaces.
- Adapted to a changing work environment to reduce technical debt by learning new frameworks.

PROGRAMMING LANGUAGES AND ACHIEVEMENTS

Programming Languages
- C, C++, C#, Python, Kotlin, Java, JavaScript, Nuxt, Vue, Svelte, HTML/CSS, Go

Achievements
- Noether-Lebniz Math Award 2017-2018
- FIRST Robotics Steamworks Competition Quarter Finalist 2017
- Eagle Scout Award 2014