

# CHRISTIAN PRATHER

## AI Robotics Engineer

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### SUMMARY

Looking for opportunities to advance my skill set in programming and AI. Highly motivated and passionate. I am particularly interested in advancing the development of NLP, general intelligence and analog computing for ML.

Wanting to explore the world of machine learning and simulation especially as it applies to financial markets.

### EXPERIENCE

#### AI Robotics Engineer

**LUCI Mobility, Inc** 05/2021 - Present Wheat Ridge, CO

- Developed assistive technology for power wheelchair users including low latency real time computer vision based navigation systems, collision avoidance with sensor fusion, and home mapping with SLAM.
- Managed 2-year long semi-autonomous navigation project with large scale code repository and safety critical verification.
- Critical in receiving multiple government grants totalling several million dollars.
- Required high level knowledge of C, C++, Python, gRPC and the creation of custom OS with the YOCTO development suite.
- Led and developed Open Source SDK used by multiple universities built on the ROS2 stack.
- Experience with A\* and other search / path planning algorithms.

#### Software Engineering Intern

**Patroness, LLC** 01/2019 - 05/2021 Arvada, CO

- Developed interface for wheelchair to external processing computer.
- Managed the architecture, training and testing of an on edge ML based handicap feature recognition system running on quad-core ARM architecture.

#### Funded Trader

**Topstep** 04/2023 - Present Lakewood, CO

- General trader through the Topstep combine.

### EDUCATION

#### Bachelors in Computer Science with a specialization in AI and Robotics

**Colorado School of Mines**

08/2019 - 05/2021 Golden, CO

- Degree in Computer Science specializing in AI and Robotics. Earned merit and need based scholarships totalling a full ride.

#### Computer Science Red Rocks Community College

**Red Rocks Community College**

08/2016 - 05/2019 Lakewood, CO

- Full time student involved in several groups including Phi Theta Kappa Honor Society, Head of Robotics Club. Earned multiple merit and need based scholarships totalling in a full ride.

### SKILLS

High performing in C, C++ (11 14 17), Python, TensorFlow, Hierarchical State Machines, OpenCV Docker, gRPC, ROS 1&2, Jira, GitHub Actions, Google Test, Gazebo, Arduino, Linux, CAN protocol and Yocto OS development

Proficient in quantum simulator/ development library Cirq, TensorFlow Quantum, SolidWorks, FreeCAD, KiCad, Rust, Jenkins, O3DE Simulation, GCP, Solidity and Blockchain development

Experience with networking diagnostics and server bring up. Responsible for maintaining and setting up on prem server infrastructure at current employer. Allowed for remote and faster algorithm development.

A strong motivation to continue learning and developing my diverse skills. Deeply enjoy figuring out where technology from multiple industries can overlap.

Strong project management background.

### AWARDS

#### 🏆 Achievement and Excellence Award (Mines)

Received for excelling in courses while undergoing Chemo in 2020.

#### 🏆 PATHS Scholarship (Mines)

Recipient of PATHS, a highly competitive and selective merit/need based scholarship awarded by the head of the CS department.

### ACHIEVEMENTS

#### 📄 Patent Pending US 10,656,652 B2

The creation of an autonomous navigation system for power wheelchairs in both home and van ramps.

#### 💎 Team Lead for NASA SpaceGrant RocksatX Project

Co-Led a team of 12 on a year-long project that culminated in the successful launch / recovery of a payload on a sounding rocket. System was capable of capturing an image of earth.

#### 💎 AWS Certified Cloud Practitioner

Certified in general Amazon Web Services practices