

ANDREW C. HUIE

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Software engineer with four years of experience developing complex systems and applications. As a capable developer, I am looking to further my career in robotics at Mujin.

EXPERIENCE

Mujin, Inc. — Autonomous industrial robotics solutions Jun 2021–Present
Software Engineer in Test Development Division *Koto, Tokyo, JP*

- Worked to develop testing simulator for continuous integration (CI) pipeline
 - Every part of the system—including UI interactions, IO signal timing, 3D cameras, collision checking, WCS/PLC, and more—was simulated and made configurable/overrideable
 - Wrote and maintained per-project test suites of feature tests, corner cases, and injected fault scenarios
- Contributed to system monitoring bot written in Go, improving error response time
- Worked on system diagnostics and inspection webapp in React, visualizing system behavior and aiding debugging
- Set up and calibrated physical 6-axis robot test cells and successful expo demos
- Used and managed JHBuild build system for reproducible, versioned system builds
- Light work managing above containerized web services with Kubernetes

Ascent Robotics, Inc. — Autonomous robotics technology development Sep 2017–May 2021
Senior Software Engineer *Shibuya, Tokyo, JP*

- Member of team developing autonomous vehicle simulation suite, for training/evaluating decision-making algorithms
 - Lanelet2/OpenDrive map generator for in-house road network format, designed to facilitate searching for difficult scenarios
 - Emulation of perception stack output for agent training in sim environment
 - Lightweight collision sim for MCTS playout/rollout during simulation step
 - High fidelity driving sim using Unreal Engine 4 with output similar to car platform
- Conducted screening interviews for hiring candidates
- Created data generation pipeline for object recognition in [publication](#):
Object Detection using Domain Randomization and Generative Adversarial Refinement of Synthetic Images *ArXiv 2018*
Fernando Camaro Nogues, **Andrew Huie**, Sakyasingha Dasgupta

TECHNICAL PROFICIENCY

Computer Languages

Proficient

Python

Familiar

Bash, Rust, C++

Development Tools

Pytest, GNU/Linux (Arch Linux & Debian), Git, Docker, Nix Package Manager

EDUCATION

Rice University *Houston, TX, USA*
Bachelor of Arts in Computer Science, 2016

Relevant Coursework: Automata, Formal Languages, and Computability; Computer Game Design; Tools and Models in Data Science; Computer Security; Computer Networks

PROJECTS

scrambler

github.com:achuie/scrambler

Scramble generator for the Rubik's Cube. Random move generator as a baseline, with a more sophisticated IDA* solver in the works.

Cutthroat

github.com:achuie/cutthroat

Networked multiplayer, top-down, ASCII-art shooter video game written in Java in which players mine for ammo and weapon upgrades, and win by reaching a number of kills.