

# ANDREW C. HUIE

+81 (70) · 4387 · 8863 ◇ [andrew.huie@alumni.rice.edu](mailto:andrew.huie@alumni.rice.edu)

## 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

## TECHNICAL PROFICIENCY

---

### Computer Languages

**Proficient**

**Rust, C++, Python, Java**

**Familiar**

Bash, Javascript/HTML/CSS

### Development Tools

Linux, Git, CMake, IntelliJ, Nix Package Manager, Visual Studio

## EXPERIENCE

---

**Ascent Robotics, Inc.** — Autonomous vehicle technology development

Sept 2017 – Present

*Senior Software Engineer*

*Shibuya, Tokyo, JP*

- Simulation suite development
  - > Lanelet2 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
- Simulation environment exposing handles for domain randomization of objects, background, object position, lighting, and perspective for training data generation in [publication](#):  
Object Detection using Domain Randomization and Generative Adversarial Refinement of Synthetic Images *ArXiv* **2018**  
Fernando Camaro Nogues, **Andrew Huie**, Sakyasingha Dasgupta

**Dr. Robert Cartwright, Rice University** — Object-oriented program development

May – Sept 2016

*Research Assistant*

*Houston, TX, USA*

- Created a new release of [DrJava](#), a pedagogic integrated development environment (IDE)
- Adapted the JaCoCo Java code coverage library for integrated use in DrJava
- Debugged JUnit integration, Find/Replace, other UI features
- Updated documentation with DocBook

**Dr. Dan Wallach, Rice University** — Java TCP/IP penetration testing

May – Aug 2015

*Research Assistant*

*Houston, TX, USA*

- Inspected the security of TCP connections in Java 8, regarding the HotSpot JVM heap
- Analyzed the JVM heap with VisualVM across GC stress tests in VMWare
- Discovered and patched security flaws

**LumaDyne Aerospace & Scientific, LLC** — Purpose-built scientific instruments

Feb – Aug 2014

*Electrical Engineering Intern*

*Houston, TX, USA*

- Designed and fabricated application-specific printed circuit boards
- Experience with hardware and software design tools: Multisim, Ultiboard, and LabVIEW

## PROJECTS

---

**Cutthroat**

<https://www.github.com/achooie/cutthroat>

*Java*

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

**Custom Keyboard**

<https://www.github.com/achooie/dotfiles/tree/master/planck-keymap>

*C*

Programmed with [QMK](#), featuring multi-function tap/hold keys and RGB LED modes for ease of programming.