

ANDREW C. HUIE

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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
- Ran thousands of automated trials in VMWare to stress test garbage collector
- Analyzed the JVM heap with VisualVM
- 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

Salient Partners, L.P. — Financial assets management firm

May – Aug 2013

IT Intern

Houston, TX, USA

- Diagnosed and resolved a range of software, hardware, and network issues
- Deployed and repaired Dell workstations

PROJECTS

Cutthroat

Java

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

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.