ANDREW C. HUIE

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EDUCATION

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

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

TECHNICAL PROFICIENCY

Computer Languages
    Proficient   **C++, Python**, Rust, Java
    Familiar   Bash, Javascript/HTML/CSS
Development Tools   Linux, Git, CMake, IntelliJ, Nix Package Manager, Visual Studio

EXPERIENCE

Ascent Robotics 株式会社 — Autonomous robotics technology development   Sept 2017 – Present
Senior Software Engineer   *Shibuya, Tokyo, JP*

· Contributed to autonomous vehicle simulation suite
    ➢ 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 simulation environment for robot arm pick/place project, 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

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 with tools including Multisim, Ultiboard, and LabVIEW

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.