Sean Kennedy

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EDUCATION

UT DALLAS

BS in Computer Science
Expected May 2021 | Dallas, TX
Cum. GPA: 4.0 / 4.0
Major GPA: 4.0 / 4.0

COURSEWORK

C/C++ in Unix Environment
Honors Discrete Math I & II
Honors Computer Architecture
Computer Science I & II
Linear Algebra
Calculus I & II

SKILLS

Languages: Python, C/C++, Lua, SQL, Java, Octave, R
Graphics: OpenGL, GLFW
Machine Learning: Tensor Flow, MXNet
Editors: Emacs, Vim, XCode, PyCharm
OS's: macOS, Windows, Linux, Unix
Software: Microsoft Office

HONORS & AWARDS

Dean's List:
Fall 2017
CS^2 Honors: Honors program at the University of Texas at Dallas restricted to the top 10% of CS students.
USACO Gold Division Competitor: Obtained competitive scores in the Bronze and Silver divisions of the USACO to qualify for the Gold division, which is limited to the top 1000 contenders in USACO competitions.
Stanford Machine Learning Course Certificate: Studied the basics of machine learning, including techniques such as logistic regression, neural networks, and k-means.

OBJECTIVE

To attain a research position during the fall of 2018.

WORK EXPERIENCE

PROCEDURAL REALITY | Software Engineering Intern

May 2017 - Aug 2017 | Baton Rouge, LA

- **AI System Architecture:** Designed and implemented the architecture for an AI navigation system for the game Limit Theory based on flow fields, as well as a dynamic economy centered around AI traders, all written in Lua.

LSU CODING CIRCLE | Teaching Assistant

June 2017 | Baton Rouge, LA

- **Teaching Python:** Used extensive knowledge of Python to mentor students working on projects in machine learning, networking, and audio-synthesis, as well as a variety of other topics.

SIDE PROJECTS

FILE-BACKUP DAEMON | CS 3377 Capstone Project

Dec 2017 - Present

- **Encryption:** Used Libcrypt++ to generate and store encrypted versions of files in a secure directory.
- **Forking:** Learned about the fork() function in C, and ran the program as a background process through fork().
- **Signal Catching:** Used pipelining to monitor signals sent to the process, and adjust program behavior accordingly.
- **Notification System:** Made use of the inotify utility to monitor changes in files, and backup them accordingly.
- **Command Line Parsing:** Implemented a command line parser for the Daemon using the TCLAP library.

HYDRA GAME ENGINE | Personal Project

Dec 2017 - Present

- **OpenGL Graphics:** Used OpenGL and GLFW to write a graphics library with custom shaders written in GLSL.
- **Entity Component System:** Implemented an ECS architecture to facilitate a dynamic system to keep track of objects in the engine.

AUTONOMOUS CAR | ACM Projects Member

September 2017 - November 2017 | Dallas, TX

- **Machine Learning:** Used TensorFlow to develop an image processing system that would assist the car in navigation through a room and around obstacles.