

Luke Jones

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github.com/lpjones

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EDUCATION

University of California, Davis, CA

Degree: BS/MS Computer Engineering
Expected BS: June 2024
Expected MS: June 2025
GPA: 3.9

PROJECTS

Autonomous Companion — Senior Design

JANUARY 2024 - PRESENT

We are using Tensorflow, PyTorch, Jetson Nano, Intel Realsense Camera, and an RC car to build a companion that follows a person and changes behavior based on different poses. We are implementing this with object and pose detection machine learning computer vision models.

Path Tracking

SEPTEMBER 2023

Used a YOLO object detection model to track the path traveled of people in a video.

Educational Game

DECEMBER 2022

Created an educational game to help students analyze a logic problem in a middle school math class.

Maze Solver

NOVEMBER 2023

Created a maze solver with a display that can use either the dijkstra or A-star algorithm

WORK EXPERIENCE

IHSS — Health Care Provider

JANUARY 2022 - PRESENT

In-home care for a client with disabilities.

SKILLS

Languages: C/C++, Python, Verilog, Assembly
Tools & IDE: Git, Visual Studio Code, Quartus
Operating Systems: Windows, Mac, Linux
Machine Learning: Tensorflow, PyTorch, OpenCV, CUDA, Sklearn

RELEVANT COURSEWORK

Turned serial programs parallel using Cilk to increase runtime performance

Trained object detection models using CUDA, Sklearn, TensorFlow, and PyTorch

Built a simple Linux command line shell

Math: Calculus, Differential Equations, Linear Algebra

RELEVANT CLASSES

Performance Engineering

Operating Systems

Applied Machine Learning

Applied Linear Algebra

Computer Architecture

Algorithm Design and Analysis

Data Structures

Object Oriented Programming

Computer Networks

HOBBIES

VR/AR, Weight lifting, Math, Video and Board games