

List of Projects from Core CS Classes

Computer Vision - Seam Carving Algorithm - C++ <ul style="list-style-type: none">- Dynamic memory, structs, C-style object oriented programming.	EECS 280
Euchre - C++ <ul style="list-style-type: none">- Built simulator for the card game Euchre.- Abstract data types and polymorphism.	EECS 280
Web and Linked List Implementation - C++ <ul style="list-style-type: none">- Built a small web server for an office hours help queue website.- REST API, reading and writing JSON.- Implemented a templated doubly linked list.	EECS 280
Machine Learning and BST - C++ <ul style="list-style-type: none">- Built a program to classify Piazza posts based on subject material.- Implemented using a binary search tree.- Implemented a Templated Binary Search Tree.	EECS 280
Puzzle Solver - C++ <ul style="list-style-type: none">- Implemented program to efficiently solve a puzzle made of characters.- Implemented a backtracking algorithm to find solution.- Optimized to use small amounts of memory.	EECS 281
Stock Market and Priority Queue - C++ <ul style="list-style-type: none">- Implemented program to handle buy/sell requests from a virtual stock market using priority queues.- Implemented a sorted array priority queue.- Implemented a binary heap priority queue.- Implemented a pairing heap based off of papers by Sahni and Fredman.	EECS 281
SillyQL - C++ <ul style="list-style-type: none">- Implemented a relational data base with a simple command line interface.- Built using hash tables.- Optimized for speed.	EECS 281
Drone Delivery - C++ <ul style="list-style-type: none">- Implemented a program to effectively plan routes for delivery drones to fly based on delivery locations.- MST and TSP.- Branch and Bound algorithm.	EECS 281
Various Assemblers and Memory Simulators - C <ul style="list-style-type: none">- Implemented an assembler for an LC2K, an 8 instruction ISA.- Implemented memory simulators for single-cycle, multi-cycle, and pipelined control flows.	EECS 370