

Shreyas Telkar

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Education

University of California Santa Cruz- Bachelors of Science in Computer Engineering
Concentration in Systems Programming, Expected Dec 2023

Coursework: C Programming, Data Structures and Algorithms (Python and C), Introduction to Compiler Design, Logic Design (Verilog), Introduction to Electronic Circuits, Introduction to Computer Networks, Linear Algebra

Interests: Software Development, Computer Systems, Python and C, Hardware Engineering, Cybersecurity

Skills

Languages: C, C++, Python, Verilog, HTML, MATLAB

Data Structures and Algorithms : Linked Lists, Binary Search Trees, Sorting, Hashing, Graphs

Git , Network Programming, Linux , MIPS, VIM, Bash Scripts, Regex, Excel, Breadboard, OOP

Soft Skills: Communication, Teamwork, Time Management, Critical Thinking

Projects

Smart Bell (Software Design Class): Dart, Python, Flask Server, Bash, Agile, Scrum

5 member team project that created a hands-free doorbell (smart-home security system) with a raspberry pi, camera and motion sensors with livestream monitoring and live notifications from an app.

Morse Code Decoder over LED (Embedded Systems): C, Python, Electronic Circuits

Using an ESP32C3 programmable RUST C board, the ESP with ADC decodes a morse code message sent through an LED and picked up by a light photo sensor. A RPI4 programmes the LED python code to send the message to the sensor.

Traveling Salesman Problem: C, Data Structures and Algorithms

Find the shortest (hamiltonian) path from a starting city location (vertex) to itself with dfs. The graph is an nxn matrix and keeps track of vertices on the path with a stack.

HTTP Server: C

An HTTP Server that can handle GET and PUT requests. Parsing of the request is done through regex and a formatted response is written to the listening socket.

Similar to “Geometry Dash” Platform Game: Verilog, Logic Design (Bit Manipulation)

Programmed on the FPGA BASYS3 board, this VGA displayed game features a coin-collecting and pitfall-avoiding aspect with charged jumping mechanics. Created with State machines, Sequential Logic, Counters, and Flip-Flops.