Linh Khanh Nguyen

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https://github.com/linhkhnguyen98

Education

University of California, San Diego San Diego, CA
BS Computer Engineer

San Jose City College San Jose, CA
AS Mathematics AA Scientific Inquiry & Quantitative Reasoning
AA Social & Behavioral Sciences

Work Experience

Picarro Santa Clara, CA
Test Engineer Current

- Execute and validate automated and manual test procedures to ensure product performance meets engineering specifications.
- Analyze test results using Python, and scripting tools to identify anomalies and troubleshoot software and hardware issues.
- Perform diagnostics on embedded systems, firmware, and hardware components to identify root causes of failures.
- Identify, debug, and fix issues in test scripts and automation frameworks, improving test accuracy and efficiency.
- Utilize debugging tools, log analysisto investigate product malfunctions and implement fixes.

Projects

CRDS Outliner Analysis https://github.com/linhkhnguyen98/CRDS-Outliner-Analysis
- Investigated unnecessary signal loss in cavity ring-down spectroscopy (CRDS) using an Arduino-based detector.
- Analyzed loss behavior across varying detector gains and hardware interactions to optimize system performance.
- Applied data-driven analysis in Python to correlate detector output with optical and electronic system performance, aiding in troubleshooting and optimization.

To-do List https://todolist-lkn.netlify.app/
- Developed a React-based To-Do List web app with CRUD functionality and persistent data storage using localStorage to manage tasks efficiently and demonstrate front-end development skills.

Data Compression https://github.com/linhkhnguyen98/Huffman-Tree
- Constructed a Huffman Tree to compress and decompress files in C++.
- Utilized serialization to optimize the compression and decompression process.

Constructing An Undirected Graph https://github.com/linhkhnguyen98/Undirected-Graph
- Implemented an undirected graph with its basic properties in C++.
- Implemented Dijkstra's Algorithm for finding weighted shortest paths.
- Implemented Kruskal's Algorithm for finding the smallest connecting threshold.

Personal Portfolio Website https://linh-personal-porfolio.netlify.app/
- Designed a responsive and interactive personal portfolio website using HTML, CSS, and JavaScript.
- Optimized for seamless user experience across various devices and screen sizes.

Video Game Recommender Systems https://github.com/linhkhnguyen98/Recommender-System
- Built a recommender system for Steam video games using Python and TensorFlow.
- Implemented a Bayesian Personalized Ranking (BPR) model for play prediction.
- Refined algorithmic logic for time played prediction, reducing mean squared error.

Skills

Programming Language:

C++, Python, C, Java, ARM, HTML, CSS, JavaScript, ReactJs, System Verilog.

Tools and Technologies:

Git, GitHub, MATLAB, TensorFlow, Netlify, LTSpice.