Edgar Tejada

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Latest Resume

Technical and Personal Skills

10+ Years	5+ Years	2+ Years	Beginner
Linux Server	C++	Scratch	MIPS Assembly
Bash Scripting	Java	Python	Solidworks
MATLAB	git	Arduino	Windows SDK
Spanish	Wolfram Language	LaTeX	Mandarin Chinese

Projects

Yenaldooshi https://github.com/ejtejada/Yenaldooshi

- ◇ Enables full Vulkan and OpenGL acceleration within Ubuntu based virtual machines using P106-100 mining units
- ◇ Modifies X.org files with a Bash script, unlocking gaming and rendering performance within 90% of a GTX 1060

Society of Automotive Engineers Test Bench https://github.com/brevsae/sae-testbench

- ◇ Employs Arduino controlled fans and kill switches to ensure battery temperatures remained below 60° C
- ◇ Streamlines battery simulations with MATLAB+Solidworks to actualize BMS of LiFePO4 cells in 17s6p array

Scripts4Hotkeys https://github.com/ejtejada/Scripts4HotKeys

- ◇ Creates a useful toolset of scripts that allow opening sandboxed instances of various gaming platforms via firejail
- ◇ Enables easy keyboard shortcuts in Linux to toggle evdev input devices and to stress test both CPUs and GPUs

Experience

Engineer, School of Engineering August 2021 to Present

Lennox School District, Moffet Elementary, Lennox, CA

- ◇ Taught engineering principals via project based labs covering forces, programming, electronics, and 3D printing
- ◇ Collaborated with educators to design and refine the lab materials and metrics to meet NGSS learning standards
- ◇ Documented bill of materials, project goals, and design constraints into clear and visual posters for each lab

Undergraduate Intern, Material Science Department June 2017 to August 2017

Materials Connection REU, University of California Riverside, Riverside, CA

- ◇ Implemented object tracking of transition metal nanolayers in Wolfram, lowering measurement times by 10%
- ◇ Developed library to interpolate future particle positions using similarity transforms and lagrange polynomial
- ◇ Improved reusablity via libraries, documented the lab's Wolfram codebase, and automated offsite backups

Supplemental Instruction Coach, Mathematics Department August 2015 to May 2016

Supplemental Instruction Program, El Camino College, Torrance, CA

- ◇ Led weekly study sessions for students in College Algebra and Statistics that reinforced learning outcomes
- ◇ Designed robust practice exams based on the professor's notes and hosted timed mock exam sessions
- ◇ Built teaching materials and group exercises that fostered Socratic learning and critical testing strategies

Education

University of California Merced, Merced, CA May 2020

Bachelor of Science in Computer Science and Engineering, *Minor in Writing*

Selected Coursework: Intro to AI, Numerical Methods, Writing in NatSci, Databases, Operating Systems, Computer Vision

El Camino College, Torrance, CA December 2017

Associates of Arts in English, Associates of Science in Physics

Selected Coursework: Creative Fiction, Public Speaking, Composition, Data Structures, Statistics, Optics + Modern Physics

Leadership Roles

Electrical Systems Officer @ *Formula Society of Automotive Engineers*, UC Merced June 2018 to June 2019

- ◇ Implemented and tested electrical control and safety systems for a formula race car's high voltage components
- ◇ Modeled vehicle kinematics and optimized tire camber using MATLAB and Simulink

President @ *Inter-Club Council*, El Camino College August 2016 to May 2017

- ◇ Enforced parliamentary voting procedure for ICC, a student government that oversaw all clubs and charters
- ◇ Planned and followed a budget for all club funds, ensuring ICC transparently allocated its $30,000 for all clubs

Treasurer @ *Programming Applications Club*, El Camino College August 2015 to May 2016

- ◇ Managed funds for registration fees and transportation to 2 annual hackathons in Southern California
- ◇ Ran weekly training workshops for C++ and algorithms to prepare 9 members for coding and design challenges