Tung Nguyen

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Education

University of Alabama in Huntsville Huntsville, AL

Bachelor of Science in Mechanical Engineering, Minor in Mathematics. GPA: 3.86/4.00 *Aug. 2018 – Dec. 2022*

Honors Thesis

Nguyen, Thomas"**CUBESAT Power Module Snap-fit Mechanism" (2022).**
Honors Capstone Projects and Theses. 759.

Projects

ComfySpace | *Flutter, Dart, SQLite, Supabase, Bash, SSH, Figma* March. 2023 – Present

- Developing a cross-platform application to create customizable Raspberry Pi Human-Machine Interface.
- Designed & developed application using Flutter. Currently published on Playstore & available for Windows.
- Created & optimized SSH command flow for optimal performance.
- Optimized user experience for automatic script update, connection detection, and connection elimination.
- Using Flutter & Supabase to develop ComfyShare, Github for Raspberry Pi & Comfy projects, allowing for better integration, usage & monetization.
- Documentation: comfystudio.tech; Github: github.com/ThomasVuNguyen/comfySpace

ComfyScript | *Python, Raspberry Pi, Linux, Git, Markdown* March. 2023 – Present

- Developing a framework to reduce complexity and time usage for Raspberry Pi development.
- Using Python & OOP to create scripts for every Raspeberry Pi components & HATs.
- Developing hardware-based state management method to allow python cocurrency & code interruption between multiple terminals, python scripts, and SSH sessions.
- Created and managed Youtube channel about complicated Raspberry Pi projects simplified. Total 46,000 views.
- Github: github.com/ThomasVuNguyen/comfyScript

Experience

MEP Engineer Jan. 2023 – Present

RGD Engineers *Jupiter, FL*

- Designing sanitary, domestic, fuel, condensate, storm, and fire piping systems for 37+ projects ranging from luxury homes to hospitals and high rises.
- Designing and monitoring construction on Chiller system replacement projects.
- Pioneering automated processes for system calculation using DynamoBIM.
- Mentoring new Plumbing designer on all items above.

Module/Pack Engineer Intern Jan. 2022 - Apr. 2022

Telsa Motors *Austin, TX*

- Optimized HIPOT testing process for Tesla Model Y, resulting in a process 3 times faster and 45% more effective than the previous golden standards.
- Established vendor network for HIPOT testing and Wade Seal production, resulting in 80% lower lead time and 50% better pricing.
- Designed, tested, and fabricated ergonomic upgrades and material loading stations.

Mechanical Engineer Intern Jan. 2021 - Aug. 2021

Sonoco *Hartselle, AL*

- Designed and fabircated Flange Flipper Machines (electric, hydraulic, and pneumatic), resulting in faster operation, ease of maintaience, and more size accomodation.
- Automated Flange design generation process, resulting in 50% less time and man-power required.
- Working with Raspberry Pi, Arduino, and CAN communication to create a fully-automated & plug-and-play material storage system.
- Worked on FEA Analysis to design material storage system to accomodate 6000 lbs of materials.
- Automated system for coordinating site renovation using AutoCAD.

Software Skills

Languages: Dart, Python, Bash, C/C++, SQL (Postgres), JavaScript, HTML/CSS.
Framework & Services: Flutter, VueJS, Boostrap, ROS, OpenAI, AWS, Netlify, Firebase, Supabase.

Mechanical Skills

Software: SolidEdge, Autodesk Inventor, Autodesk Fusion360, Catia, Revit, BIM, DynamoBIM, AutoCAD, BlueBeam, NewForma, Onshape, NI LabVIEW.
Skills: 3-D Printing, G-code editing, Design for Manufacturing, FEA Analysis, PCB Design.
Building Codes: International Building Codes, Florida Building Codes, NFPA.