




PHAT NGUYEN

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Electrical Engineer

Problem-Solving / System Design / Project Coordination / Collaboration

Accomplished, dedicated, motivated, and bilingual professional with the academic background and proven work ethic to handle electrical engineering. Proficient in project coordination, complex problem-solving, design, documentation, investigations, collaboration, and hold a great desire to learn. Collaborates with diverse teams in achieving and surpassing objectives. Exemplary academic qualifications include a Bachelor Degree of Science in Electrical Engineering from Texas Christian University.

Core Competencies

*Electrical Engineering / Project Management / Team Collaboration / System Development / Design / Reporting
Communication / Teamwork / Inspections / New Technologies / Needs Assessments / Customer Service
Client Relations / Process Improvement / Performance Development / Organization / Attention to Detail / Curiosity*

EDUCATION

Texas Christian University (2023) – Bachelor of Science (Candidate) in Electrical Engineering

Tarrant County College – Associate of Arts

- Relevant Coursework: Circuit Analysis, Signal and Systems, Electromagnetics, Electronics, Dynamics & Vibrations, Thermal System, Static Mechanics, Solids Mechanics, Materials Science, Controls System, Issues in Engineering Design, Statistics, Engineering Economic Analysis, Sustainable Energy
- Awards/Honors: TCC Math Jim Bolen Scholarship (TCU Full Tuition Award), TCC Math Jim Bolen Top 10 Highest Overall Scorers, TCC Honor's List, Dean's List
- Certifications: FE Electrical & Computer (Engineer-In-Training), Enphase Solar PV Installation Certificate, Enphase Storage Installation Certificate, Generac PWR Cell Installation Certificate, Enphase Storage Sales Certificate
- Clubs/Activities: TCC Phi Theta Kappa, TCU Institute of Electrical and Electronics Engineers, TCU Robotics and Artificial Intelligence Club, TCU Minorities Opening Roads for Engineers, TCU Vietnamese Student Association

PROFESSIONAL EXPERIENCE

Smith Seckman Reid, inc. (Dallas, Texas)

2024 - Present

Electrical EIT & Production Studio Liaison

- Research and developed comprehensive designs for healthcare and commercial buildings using Bluebeam, Autodesk Revit, and AutoCAD; coordinated cutsheet requirements with external vendors and visualize performance of the electrical system and solutions for improvement with power system studies, lighting photometric analysis by utilizing SKM software, AGI32, and MS Excel analysis table. Created one-line diagrams, risers, and schedules.
- Coordinate meetings with company's partners and stakeholders to perform and enhance system reliability.
- Develop and implement standardized processes for collaborating with NightVision production teams.
- Lead regular communication with production studios to monitor progress, address challenges, and maintain high-quality output.
- Facilitate troubleshooting and problem-solving across teams, acting as the main point of contact for project updates, revisions, and feedback.

Projects include: Children's Hospital, Hunt Regional, Baylor Scott & White Health, UT Southwestern, University of New Mexico, Harris Health System, Houston Methodist Cypress, and Dallas Hospitals; Surgery Centers; Operating, Imaging, and MRI Rooms; Bronchoscopy Rooms; Patient Rooms; ED Triage; Laboratories; and Medical Office Buildings

Industry software: Revit, AutoCAD, Bluebeam, Visual, AGI32, SKM, COMcheck, Microsoft Office

Code exposure: NEC 517, NEC 700, TDHS, IES, IECC, ASHRAE

First Co., HVAC Manufacturing Company (Dallas, Texas)

2023

Electrical Project Engineering Intern

- Collaborated with an 8-member engineering team to gather and analyze critical data for informed project decisions.
- Designed electrical circuit and HVAC design, along with data analysis and reporting utilizing LTSpice, AutoCAD, and MS Excel.
- Programmed microcontroller boards using C and Python, with hands-on PCB design experience.
- Conducted thorough sound testing for Commercial HVAC systems, including compressors, fans, and blowers.

Solar SME, Inc. (Grand Prairie, Texas)

2023

Electrical Field Engineering Intern

- Designed, installed, and commissioned various solar systems, including Enphase, Tesla, SolarEdge, SolaX and Generac. Tested and evaluated battery-operated PV systems and modules. Troubleshooted and diagnosed problems in solar systems, offering on-field and remote assistance to installation teams for effective resolution.
- Planned, designed, and supervised project work schedules and project-related works to ensure compliance with requirements.
- Conducted periodic visits to construction sites to oversee and verify site progress while providing necessary inputs and guidance. Reviewed specifications and recommended engineering or manufacturing changes to achieve solar design objectives.
- Conducted thermal, stress, and cost reduction analyses for solar systems. Developed standard operation procedures and established quality and safety standards for solar installation works.
- Engaged in research and development activities focused on smart load management systems.

HK Roofing (Arlington, Texas)

2022 – 2023

Assistant Project Manager

- Conducted thorough job site observations, ensuring that projects were completed to the highest standard and that clients were fully satisfied with the final product.
- Performed thorough examinations of residential and commercial roof structures, including shingles, flashing, gutters, vents, and insulation, to determine their integrity and identify areas requiring repair or replacement.
- Became a go-to resource for difficult problems and industry-specific inquiries.
- Championed process improvements and delivered up to 10% annual cost savings.
- Provided constructive employee feedback and supported the creation of a new handbook designed to share lessons learned and best practices across the organization.
- Demonstrated and promoted a positive workplace culture and fostering a collaborative team environment that facilitated the sharing of ideas and expertise.

Tarrant County College (Fort Worth, Texas)

2019 – 2020

Math Tutor

- Served as an accomplished educator, guiding over 50 students through their coursework and ensuring their success through assignments, homework, and exam preparation.
- Provided dedicated tutoring in math to students, offering personalized attention and mentoring to help bridge performance gaps and achieve academic goals.
- Served as a critical resource for students both in and out of the classroom. Fielded and resolved inquiries from over 50 students each week in person and through email, responding promptly and effectively to ensure that students had the support they needed to succeed.

Phuoc Tinh Aluminum Manufacturing Workshop (Vietnam)

2015 – 2016

Manufacturing Assistant Manager

- Inspected assembly work and achieved optimal quality in a fast-paced, high-stress workplace.
- Acted as the primary liaison between management and co-workers to help drive improvement in the production process.
- Demonstrated a strong commitment to personal and professional development, increasing knowledge at every opportunity to learn and integrate modern practices and technologies into work processes.
- Worked collaboratively with HR to rework onboarding processes for manufacturing staff, ensuring that new hires were effectively integrated into the team and provided with the resources necessary for success.

ACADEMIC PROJECTS

Automated Tennis Ball Retriever – Sponsored by **DiamondBack Industries, Inc.**

- Demonstrated a superb work ethic in financial optimization, motor and sensor integration, circuit building, circuit research, and 3D-printing prototype fabrication.
- Conducted analysis of sensor data to assess the performance of electrical systems. Designed and executed rigorous testing protocols to validate sensor fusion performance, leveraging programming languages such as Java and Python on Arduino and Raspberry Pi platforms.
- Implemented algorithms and conducted comprehensive testing and validation for sensor systems applied integrating motors into the rover.

Sounds and Sound Processing

- Developed expertise in sound processing and performed mathematical operation on the sound signals and developed the sound of telephone lines and music using MATLAB to create tones, arrange frequencies, and composite signals.
- Implemented sound processing techniques to ensure high-quality sound output.

Thermal Conductivity & Electrical Resistivity of Materials Science Project (TCU Materials Science)

- Served as a Team Leader for a team of 4 members throughout the project.
- Conducted tests to measure the thermal conductivity and electrical resistivity of brass and aluminum.
- Analyzed test data to determine the best material, to create temperature and time diagrams of composite data. Reported findings and conclusions in the instruction manual, highlighting the best material based on test results and data analysis.

Robotic Design Project

- Designed and constructed an automated robot using The Lego Mindstorms EV3, addressing challenges through technical skills.
- Utilized Arduino and other analytical tools to test and analyze the robot's performance.

ADDITIONAL CREDENTIALS

Technology: Office 365, SOLIDWORKS, AutoCAD/Inventor, LTSpice, Arduino, Raspberry Pi, SQL, MATLAB, Java, Python, OpenSolar

Languages: Vietnamese (Native), English (Professional)

Community: The Kaizen Project (TCU), Thuong Hanh Buddhist Monastery (McKinney, TX), Dao Tam Charity Organization (Dallas, TX), K-Life & CYOK of City Church (Bartlesville, OK)

Interests: Mental Health Research / Culture Exchange / Outdoors Activities