Kim Tran

kimdotran.official@gmail.com ❖ (806) 681-1193 ❖ Dallas, TX ❖ www.linkedin.com/in/kimdotranofficial

PROFESSIONAL EXPERIENCE   https://lowinertia.com/portfolio/kimdot

Mechanical Development Engineer | SIGNIFY VARI-LITE
January 2024 - Present, Dallas, TX

- Engineered entertainment fixture components for IP65 environments (SolidWorks); performed full tolerance analysis, created all spec drawings (ASME Y14.100), and responsible for rapid prototyping.
- Designed/routed certified cabling (AutoCAD) with PCB interfaces, shielded connectors, PSUs, and EMI-filtered components for compliance approvals.
- Developed and led optical test systems with LEDs/lasers for R&D through the use of bench models; conducted photometric testing using chroma meters and integrating spheres.
- Analyzed fan airflow, noise, and energy efficiency for new product developments in both simulation environments (CFD) and using lab testing methods (thermal chambers, pressure tests, and NC levels).
- Overseas design of production machinery, tooling, and assembly jigs with vendors and operations.

Mechanical Development/Design Engineer Intern | SIGNIFY VARI-LITE
September 2022 - December 2023, Dallas, TX

- Collaborated with a cross-functional team to develop a robotic fixture; created detailed drawings of sheet metal and machined parts with GD&T (ASME Y14.5).
- Selected robotic motors, calculated required torque based off predicted bearing loads, and designed gear train systems to meet performance targets.
- Collected sensor data (potentiometers, magnetometers, IMUs) to optimize pan/tilt motion.
- Performed CFD thermal analysis (SolidWorks, ANSYS) on electrical consoles to analyze fan air flow and validated during prototype testing with thermocouple and thermistor data.

Manufacturing Engineer Intern | SAFRAN Electrical & Power
June 2022 - August 2022, Denton, TX

- Analyzed MIL-spec wiring and electrical systems for military aircraft (V-22, F-35, B-2, GMD) and created work instructions to streamline manufacturing guidelines for production.
- Improved tooling database efficiency and reduced losses by automating with SQL, Access, and Python.
- Automated documentation by scripting Excel tools to make work instructions and drawings.
- Managed SAP processes including WT, NC, PO, CA, CRP analysis, Routings, ECNs, and approvals.

EDUCATION

B.S. in Mechanical & Energy Engineering | The University of North Texas
Cum laude, 2023

SKILLS

Mechanical Design: CFD, FEA, GD&T, Thermal Management, Bearing & Shafts, Power Transmission, Motors, Cabling, Prototyping, 3D Printing, Testing/Verifications, Optical Design, Tooling design, Gears,
Manufacturing: Lean Six-Sigma, Machining, Sheet-metal, Casting, Injection Molding, Gear Hobbing, Gasket Molding, Die Cut, PCB, Optics, Grinding, DFM, DFA
CAD/FEA Software: SolidWorks, ProE/PTC Creo, AutoCAD, CATIA V5, ANSYS
Coding Languages: C++, Python, SQL, MATLAB, Simulink, MS Access
Data Management: Excel/VBA/PQ/Macros, TipQA, SAP, Glovia, PaperVision, SolidWorks PDM, LabVIEW
Specialized Coursework: Aerospace Eng, Corrosion, Li-ion Batteries, Solar Cells, Air Pollution Control