

JACOB DONG

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EDUCATION

The University of Texas at Dallas

May 2023

- **B.S. in Mechanical Engineering**, Minor in Computer Science

GPA: 3.9/4.0

WORK EXPERIENCE

Hardware & Performance Engineering Intern, HP Inc

May - Aug 2022

- Implemented desktop PC thermal solutions and increased desktop CPU, GPU performance by 13.3%
- Increased viable CPU thermal design power by 36% on high end workstation device under test
- Reduced acoustic spike events by up to 60% from increase in airflow and ventilation, using wired fans, cooling air blowers, modeling heat dissipation, and adding venting
- Researched customer experience benefits, inspired thermal changes in future portfolio

Mechanical Engineering Intern, Entergy Corp Nuclear

May - Aug 2021

- Streamlined report creation process for ultrasonic gas void checks in response to NRC Generic Letter 08-01 (Gas Voiding in Emergency Core Cooling Systems)
- Built automated void report generator using VBA in Microsoft Access, saving engineers 100+ hours
- Revised 12 large scale Piping & Instrumentation Drawings for locating potential gas void high points
- Participated in 20+ power plant system walkdowns to evaluate health of components, identify potential preventative maintenance, and monitor changes for various systems

Website Developer & Media Specialist, UTD Interdisciplinary Studies

Oct 2019 - Present

- Write informational addresses to over 500 recipients (students, staff) on Instagram and Facebook
- Edit HTML and CSS source code for 80+ webpages for mobile, desktop, and tablet accessibility
- Photograph, video, edit, and document school events for coverage on social media

Fulfillment Center Vendor Returns Tech, Amazon.com

Apr - Dec 2020

TECHNICAL SKILLS

- **Programming Languages:** C++, VBA, Python, MATLAB, Java, PHP, SQL, JavaScript
- **Software:** Microsoft Office Suite, SolidWorks, PTC Creo, AutoCAD, ANSYS Fluent & Icepak
- **Languages:** Fluent in English, Mandarin Chinese
- **Courses:** Computer Aided Design, Heat Transfer, Systems & Controls, Thermodynamics, Systems Dynamics Modeling & Analysis, Fluid Mechanics, Kinematics & Dynamics, Mechanics of Materials, Professional & Technical Communications, Data Structures & Algorithm Analysis, Automata Theory

PROJECTS

Senior Design Engineer, Lockheed Martin Missiles & Fire Control

Aug 2022 - Present

- Engineering Team Leader responsible for external communication and deliverable deadlines
- Designing, prototyping, and building a localized package delivery drone (9 months timeline)

Researcher, UMN Department of Mechanical Engineering

Mar 2021 - May 2022

- Designed a PM2.5 virtual impactor, with supplementary CAD, FEA, and CFD documentation
- Processed 100+ academic papers on photocatalytic oxidation, photo-electrochemical oxidation, non-thermal plasmas, electrostatic precipitation, fibrous filtration, UV-C and UV-A irradiation, etc

HackDFW, Hackathon, SayYesToDallas

Oct 2021

- 1st place, State Farm Challenge; 3rd place, Overall Best Hack out of 100+ projects
- Built Healthy Habits: Biometric risk factor tracking app built on Android Studio, Google Cloud, MySQL