

JACOB DONG

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Denver, Colorado | [LinkedIn](#) | [GitHub](#) | [Devpost](#)

EDUCATION

The University of Texas at Dallas	Academic Excellence Scholarship	Richardson, TX May 2023
• B.S. in Mechanical Engineering	Minor in Computer Science	GPA: 3.9/4.0

WORK EXPERIENCE

Hardware & Performance Engineering Intern , HP Inc	Fort Collins, CO May - Aug 2022
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- Implemented desktop PC thermal solutions: wired blowers and fans, cooling air blowers, modeled heat dissipation and added venting, which increased desktop CPU, GPU performance by 13.3%
- Increased viable CPU thermal design power by 36% on high end workstation device under test
- With increase in airflow and ventilation, reduced acoustic spike events by up to 60%
- Analyzed customer experience benefits in future products, inspired design changes in new portfolio

Mechanical Engineering Intern , Entergy Nuclear (ANO)	Russellville, AR May - Aug 2021
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- Streamlined package creation process for ultrasonic gas void checks in response to NRC Generic Letter 08-01, Gas Voiding in Emergency Core Cooling Systems
- Revised 12 large scale Piping & Instrumentation Drawings for locating potential gas void high points
- Built an automated void report generator using VBA in Microsoft Access saving engineers 100+ hours
- 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	Richardson, TX Oct 2019 - Present
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- Photograph, video, edit, and document school events for coverage on social media
- 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
- Update news pages, reformat user interfaces, insert new content, and build new pages

Fulfillment Center Vendor Returns Tech , Amazon.com	Thornton, CO Apr - Dec 2020
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- Mastered multiple disciplines of packing, including Liquidation, Donation, Recycle, Destroy, WOOT, Grading, SIOC, High Quantity Orders, and LTL Freight Orders

TECHNICAL SKILLS

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- **Programming Languages:** C++, VBA, Python, MATLAB, Java, PHP, SQL, JavaScript
 - **Software:** Microsoft Office Suite, SolidWorks, PTC Creo, AutoCAD, ANSYS, Performance Benchmarks
 - **Languages:** Fluent in English, Mandarin Chinese; Intermediate in Spanish
 - **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

Researcher , UMN Department of Mechanical Engineering	Minneapolis, MN Mar 2021 - May 2022
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- 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
- Compiled a large wealth of information for current aerosol filtration technologies

HackDFW , Hackathon, SayYesToDallas	Frisco, TX Oct 2021
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- Built Healthy Habits: Biometric risk factor tracking app built on Android Studio, Google Cloud, MySQL
- Utilized Google Geolocator API, Sleep API, Places API, TensorFlow Lite within the app
- 1st place, State Farm Challenge; 3rd place, Overall Best Hack out of 100+ projects