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JOS THOMAS
COMPUTER SCIENCE STUDENT

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EDUCATION

- DePaul University** | Bachelor of Computer Science | August 2025 - Expected Graduation 2027
Texas A&M University | Materials Science & Engineering | May 2025 - August 2025
Oakton College | Associates of Arts | August 2018 - May 2025

EMPLOYMENT EXPERIENCE

LOS ALAMOS NATIONAL LABORATORY, LOS ALAMOS, NM (REMOTE) OCTOBER 2025 - PRESENT

RESEARCH SOFTWARE DEVELOPER INTERN

- Developing Python-based software supporting machine-learned Extended Lagrangian Born-Oppenheimer molecular dynamics, automating data pipelines, optimizing and tuning charge-equilibration models, and porting MATLAB optimization code to PyTorch for scalable, high-performance simulations.

LOS ALAMOS NATIONAL LABORATORY, LOS ALAMOS, NM (REMOTE) MAY 2025 - AUGUST 2025

COMPUTATIONAL RESEARCH INTERN

- Researched 2D perovskites by developing a machine-learned interatomic potential, combining short-range models with per-atom electronegativities, modeled through a deep neural network and charge equilibration.
- Conducted preprocessing, dataset generation, and ML training using ASE, Pymatgen, and semi-empirical simulations on HPC systems, improving accuracy in predicting system energies and charge distributions.
- Validated models against density functional theory reference data, achieving improved reliability for defect formation and charge-transport properties.
- Presented research findings to scientific audiences, including a formal research abstract and technical talks that highlighted research progress, methodology, and future directions in computational materials science.

KEATS MANUFACTURING CO., WHEELING, IL JUNE 2016 - DECEMBER 2024

JUNIOR SOFTWARE & DATA ENGINEER

- Began in quality control, analyzing measurement data, and writing technical reports; promoted into a software & data engineer role after demonstrating programming and statistical skills.
- Maintain and develop Python tools to automate data validation, generate reports, and flag out-of-tolerance parts for quality control teams.

How-To GEEK, STERLING, VA (REMOTE) DECEMBER 2024 - MAY 2025

LINUX SPECIALIST

- Tested software, authored and published in-depth technical content on Linux systems, including reviews, troubleshooting guides, and tutorials, collaborating with a global editorial team to ensure accuracy.

PROJECTS

PERSONAL FINANCE TRACKER (PYTHON, MATPLOTLIB, PANDAS) JUNE 2024

- Developed a personal finance tracker application in Python, allowing users to log income, expenses, and savings over time. Integrated data visualization tools to reveal spending habits and financial trends.

WEATHER FORECASTING APP (JAVASCRIPT, CHART.JS) APRIL 2023

- Designed and implemented a weather forecasting application, utilizing external APIs to provide users with real-time weather updates, forecasts, and historical data. Incorporated location-based weather queries, graphical weather representations, and more.

TECHNICAL SKILLS: Python (Data Structures, Object-Oriented Programming, Pandas, NumPy, Scikit-learn, PyTorch), SQL, Git, AWS, High-Performance Computing, C++ (Algorithms, Data Structures, Object-Oriented Programming), Java (Multithreading, Data Structures, Object-Oriented Programming), MATLAB, Data Visualization (Tableau, Power BI).