

# Jacob Zhang

Purdue University School of Engineering (Spring 2025)

Major in Computer Engineering with minor in Mathematics

Additional Concentration in Artificial Intelligence and Machine Learning

## Career Objective

Objective to be hired as a software engineer with an innovative employer.

Looking for opportunities to grow while demonstrating excellent performance using skills of programming, problem solving, and innovative design.

## Education

***Purdue University (2022-2025) • GPA: 3.86***

Relevant coursework includes Artificial Intelligence, Machine Learning, Natural Language Processing, Introduction to Data Structures, Python for Data Science, Signals and Systems, Operations Research - Optimization, Compilers and Translators Writing Systems, Object-Oriented Programming in C++

Projects include image classification AI model, compiler for basic C language, spoken code editor, and refreshable Braille display.

## Skills

Python, C, C++, PyTorch, Linux, MATLAB, Microsoft Excel, Perl, Git, Java, Electronics  
Chinese, German

## Work Experiences

***Midcontinent Independent System Operator (MISO) · Network Model Engineer Intern (summer 2024)***

Worked on MISO model on demand application to create tools in Python and Perl in order to bring automation to manual processes in areas of network model update. Reduced time in some cases from 20 minutes to under a minute. Created tool to convert model updates in PSS/E format to Habitat script to update EMS models automatically.

Converted a process to prepare DayAhead (DA) model in Perl from Windows system to Linux system

Won first place in MISOs intern data challenge, analyzing a collection of data to determine the impact of the energy transition on MISO with a team

## Publications

Chen, X., Zhang, J. and Z.Y. Ou. "Mode Structure of a Broadband High Gain Parametric Amplifier." *Physical Review Research* **3**, 023186 (2021).