Ji Bing Ni

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EDUCATION

Purdue University   West Lafayette, IN
Bachelor of Science in Computer Science   *Aug. 2022 – May 2026*

EXPERIENCE

Computer Vision & Machine Learning Research Assistant   Jan. 2025 – Present
Purdue Vertically Integrated Projects   *West Lafayette, IN*
- Trained **RTMPose** models using **OpenMMLab** on **AP-10K** dataset with **10,015** images across **23** species, improving keypoint detection accuracy for animal behavior analysis
- Labeled keypoints to create a high-quality dataset, then optimized models in **Python** with **PyTorch**, leading to improved model performance

Undergraduate Data Science Researcher   Aug. 2024 – Present
The Data Mine - Purdue University   *West Lafayette, IN*
- Developed an **AI-powered chatbot** for **Wabash**, reducing reliance on call center agents
- Trained a **machine learning** model, resulting in more precise responses for customers
- Implemented a user-friendly **React** interface, improving chatbot efficiency and user experience
- Collaborated in a **team of 8**, applying **Agile** practices via **Azure DevOps** to enhance efficiency

Undergraduate CS Teaching Assistant   Aug. 2024 – Present
Purdue University   *West Lafayette, IN*
- Held office hours for **1080+** students **Object-Oriented and C Programming**, improving comprehension
- Graded **80+** assignments and provided feedback, resulting in better comprehension of course material
- Answered **200+** student questions on **Ed Discussion**, improving understanding of **Git/GitHub**, **terminal commands**, and **LaTeX**

Computer Science Tutor   Aug. 2024 – Present
Horizons Student Support Services   *West Lafayette, IN*
- Led 1-on-1 tutoring sessions for **Python**, strengthening their programming skills
- Held office hours for **Systems and Competitive Programming**, clarifying complex concepts

Software Developer   Aug. 2024 – Dec. 2024
Purdue Vertically Integrated Projects   *West Lafayette, IN*
- Developed a landing page with **HTML**, **CSS**, and **JavaScript** for **ECELabs.io**, attracting new users
- Enhanced the **ECELabs.io** website by redesigning a modern homepage, improving user experience
- Collaborated in a **software team of 5** to hold weekly meetings, maintaining remote access to hardware labs for **450+ students**

PROJECTS

Pokémon Web Application | *React, Express.js, Node.js, MongoDB*   May 2024 – Present
- Utilized **PokéAPI** for real-time data, showcasing content for **1,000+ Pokémon**
- Constructed a secure backend with **Express.js** and **MongoDB**, supporting **1,000+ users**
- Designed a responsive UI with **React, Material-UI, and Tailwind CSS**, improving user engagement

Productivity Management System | *React, Flask, SQLite*   Aug. 2024 – Dec. 2024
- Collaborated in a **6 member scrum team**, delivering **70+ user stories** for project
- Engineered a client-server application using **React.js**, **Flask**, and **SQLite**, allowing users to access and manage their tasks effectively
- Incorporated **Open-Meteo API and Google Geolocation API**, providing users with real-time weather updates and location-based services
- Executed **Scrum** practices for sprint planning, stand-ups, retrospectives, and backlog management

TECHNICAL SKILLS

Languages: Java, Python, C, C++, JavaScript, SQL, R, HTML, CSS, Tailwind CSS
Frameworks: React, Flask, Express.js, Node.js, Material-UI, Bootstrap, MongoDB, PostgresSQL, SQLlite
Developer Tools: Git, GitHub, Azure DevOps, LaTeX, VS Code, IntelliJ, Eclipse
Libraries: pandas, NumPy, Matplotlib, Beautiful Soup, SQLAlchemy