

# Chi Che Colin Wu

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## EDUCATION

### Purdue University

May 2026

*B.S. in Computer Science*

*West Lafayette, IN*

- **Courses:** Data Mining & Machine Learning, Algorithms Analysis, Systems Programming, Data Structures and Algorithms, Computer Architecture, Discrete Math, Ordinary Differential Equations
- **GPA:** 3.37/4.0

## TECHNICAL SKILLS

**Languages:** C, C++, C#, Python, Java, JavaScript, TypeScript, PHP

**Technologies:** React.js, React Native, Vue.js, Django, ASP.NET, TensorFlow, LangChain, Pandas

**Tools:** SQL, PowerBI, Docker, MongoDB, PostgreSQL, Figma, LaTeX, Bash, Linux

## EXPERIENCE

### Undergraduate Data Science Researcher

Aug 2024 – Present

*The Data Mine, Purdue University*

*West Lafayette, IN*

- Collaborated with **PepsiCo** on a project to map environmental risks impacting manufacturing sites, focusing on predictive analysis for water-related risks.
- Developed a dashboard to provide predictions for extreme weather events (e.g., floods, droughts) and climate change impacts for states such as California and Texas.
- Utilized **GIS** and **Power BI** for data visualization and creating actionable insights to help optimize operations and mitigate environmental risks.

### Machine Learning Intern

May 2024 – Aug 2024

*REVLIS Biotech Company Limited*

*Taipei City, Taiwan*

- Processed and cleaned hundreds of ECG signals from hospital patient data using **NeuroKit2** and **Pandas** to extract features for detecting Atrial Fibrillation.
- Trained and tested RandomForest, CNN, and LSTM models using **scikit-learn** and **TensorFlow** on the processed data, achieving approximately a **97.5%** accuracy in Atrial Fibrillation detection.
- Developed an LLM chatbot using Hugging Face's **LLaMA2** model and **LangChain**, employing Retrieval-Augmented Generation (RAG) to accurately retrieve and answer company-specific inquiries.

## PROJECTS

### LLaMA-2-hf-Chatbot | LLM Chatbot for REVLIS

May 2024 - Aug 2024

- Developed an AI chatbot using Hugging Face's pretrained LLaMA-2 model, fine-tuned with medical research papers and company data using **LangChain** and **Transformers** to provide accurate, company-specific responses.
- Created a lightweight web application for users to interact with the model, utilizing **Django** for API calls and **React** for the frontend.

### Artikulate | Automatic Video Editing Website

Jan 2024 - May 2024

- Developed a video-editing and content-generation website with a group that transforms text into fully edited videos for platforms like TikTok, Instagram Reels, and YouTube Shorts.
- Utilized **Django** for frontend and routing APIs, **Selenium** for web scraping, **OpenAI** API for both generating stories and text-to-speech narration, and **FFmpeg** to edit and export videos.

## LEADERSHIP

### President

Apr 2024 - Present

*ACM SIGAPP Purdue*

*West Lafayette, IN*

- Led ACM SIGAPP Purdue, Purdue's premier app development club. Under the Association for Computing Machinery chapter at Purdue, SIGAPP focuses on developing 1 large collaborative project every year.
- Planned and organized callouts, workshops, and advertising strategies resulting in enhanced club visibility and increased membership.
- Oversaw the entire project development, coordinating both the frontend (using React Native) and backend (using ASP.NET) teams, to achieve the project goals effectively.
- Set up the project's backend architecture with **MongoDB** and **ASP.NET Rest API** on ACM's servers and configured reverse proxy using **Nginx**, ensuring robust and efficient server operations.