Chi Che Colin Wu

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EDUCATION

Purdue University | May 2026
B.S. in Computer Science | *West Lafayette, IN*

- **Courses**: Operating Systems, Data Mining & Machine Learning, Algorithms Analysis, Systems Programming, Data Structures and Algorithms, Computer Architecture, Discrete Math, Ordinary Differential Equations
- **GPA**: 3.39/4.0

EXPERIENCE

Undergraduate Data Science Researcher | Aug 2024 – Present
The Data Mine, Purdue University | *West Lafayette, IN*

- Collaborated with **PepsiCo** on mapping environmental risks impacting their manufacturing sites, focusing on predictive analysis for weather/water-related risks.
- Developed a dashboard to provide and display predictions for extreme weather events (e.g., floods, droughts) and climate change impacts in California, Texas, Colorado, Nevada, Arizona, and Florida.
- 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, cleaned, and visualized hundreds of ECG signals from hospital patient data using **NeuroKit2**, **Pandas**, and **Matplotlib** to extract features and generate insights 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, fine-tuned with medical research papers and company data using **LangChain** and **Transformers** to retrieve and answer company-specific inquiries accurately.
- Created a lightweight web application for users to interact with the chatbot, utilizing **Django** for API calls and **React** for the frontend.

PROJECTS

APO Online | *Community Service Club Management Website* | May 2024 - Present

- Developed a full-stack website for the Alpha Phi Omega chapter at Purdue, enabling users to manage accounts, join events, and track volunteer hours, providing comprehensive insights for both users and administrators.
- Utilized **React** for frontend, **Django REST** framework for backend, and **PostgreSQL** for the database to implement the platform's features ensuring efficient data handling and seamless user experiences.

Artikulate | *Automatic Video Editing Website* | Jan 2024 - May 2024

- Developed a video-editing and content-generation website 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, under the ACM chapter at Purdue, organizing callouts, workshops, and advertising to increase membership and visibility while guiding the club's annual large-scale app development project.
- Oversaw both the frontend team, using **React Native**, and the backend team, using **MongoDB**, **ASP.NET Rest API**, and **Nginx**, to achieve the project goals effectively.

TECHNICAL SKILLS

Languages: C, C++, C#, Python, Java, JavaScript, TypeScript, PHP
Technologies: React.js, React Native, Vue.js, Django, ASP.NET, TensorFlow, LangChain, Pandas, Matplotlib
Tools: SQL, PowerBI, Docker, MongoDB, PostgreSQL, Figma, LaTeX, Bash, Linux