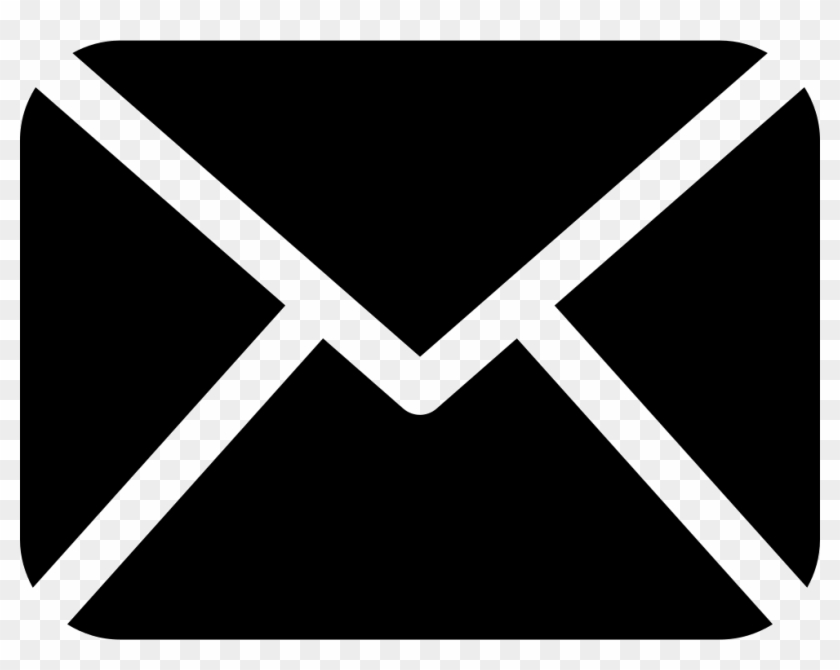
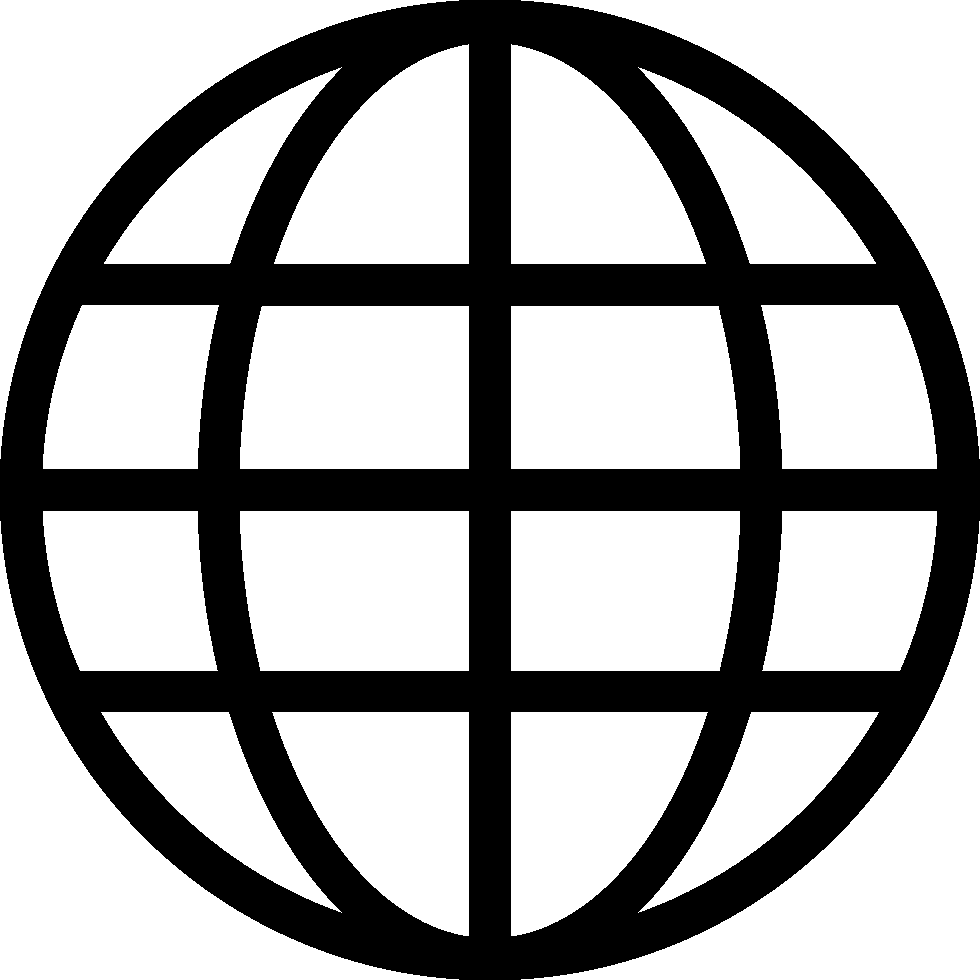
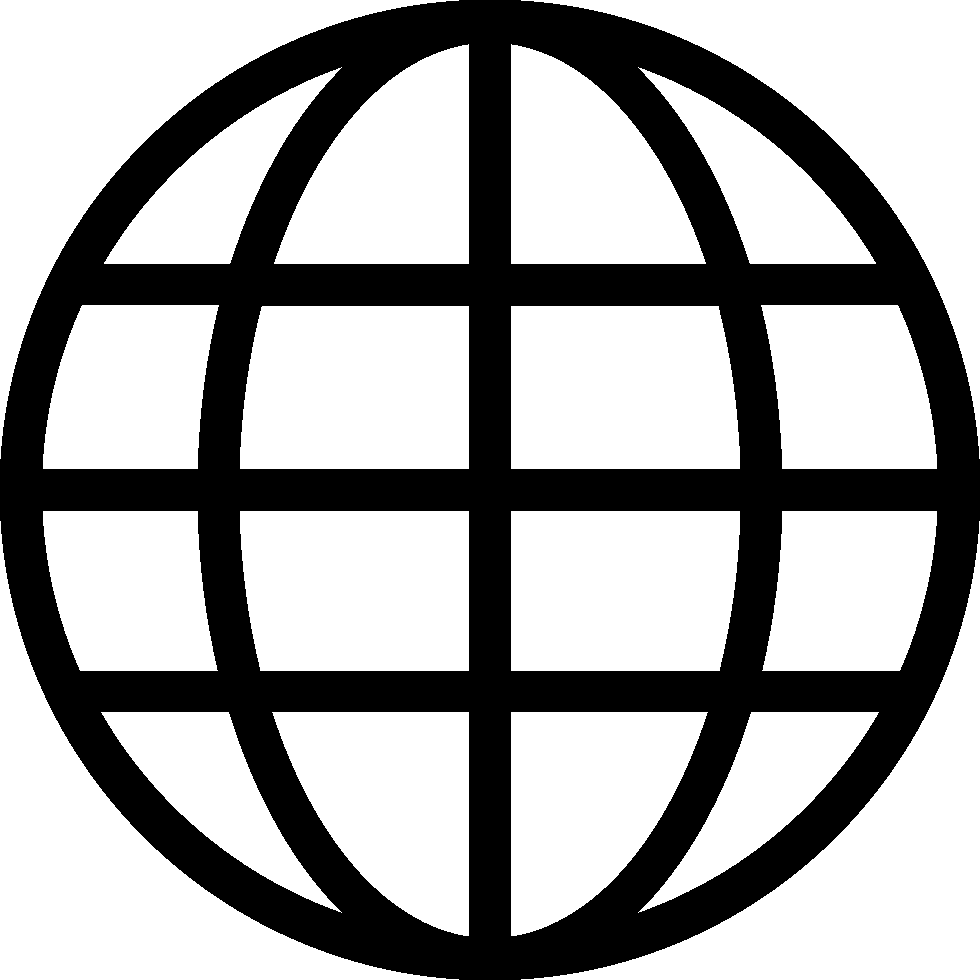
JIAXIN CHEN

  jc253@calvin.edu           https://www.linkedin.com/in/jx-chen           https://cpril.github.io/portfolio/

**EDUCATION**

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**B.S. in Data Science** Expected: May 2027

**Calvin University | Grand Rapids, MI**

**GPA 3.98** with Honors

**SKILLS**

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**Programming Languages:** Python, R, C#, C++, MySQL

**Environment:**  Linux, AWS, GitHub, R-studio, Visual Studio Code, Tableau, MS Office

**Data Analysis**: data cleaning and visualization, Statistical Modelling, Generalized Linear Models (GLM), Bayesian Inference (Stan)

**AI Development**: Machine Learning (supervised and unsupervised learning), LLM prompt engineering and tool calls, Agentic Loop, MCP client and server implementation.

**EXPERIENCE**

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**CS Lab Assistant & Grader** Dec 2024 - Present

**Computer Science Department - Calvin University**

Supervisor: prof. Rocky Chang, prof Ken Arnold, prof Henry Plantinga

* Assist in computer science labs for CS108 and CS106: Introduction to Computing (**Python**)
* Grade lab assignments for CS 212: Data Structure and Algorithm (**C#**)

**Data Consulting Hub Research Assistant** Jun 2025 - Aug 2025

**Statistics Department - Calvin University**

Supervisor: Prof. Stacy DeRuiter

* Collaborated with 13 research groups across different disciplines, serving as data consultant
* Provide data consulting service, including **data cleaning**, **statistical modelling**, and **data visualization**.
* Assisted in hosting a 3-day technical workshop on  advanced statistical modelling using R.

**Administration Office Assistant** Sep 2023 - May 2025

**Calvin University Biology and Chemistry Department**

* Served 34 faculty members and over 300 students, facilitated 12 events.
* Maintain office supply, documents, mail, and scheduling.
* Worked on data cleaning, transformation and organization using Excel.

**PROJECTS**

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**Computational Bayesian Inference of Exchange Rates**

Faculty Advisor: Prof. Stacy DeRuiter

Developed a Bayesian model to infer the USD/CNY exchange rate using macroeconomic indicators, such as interest rate differentials, inflation, and GDP growth.

* Preformed extensive **data cleaning and transformation** on historical economic data collected from public sources, such as handling missing values, aligning time indices, calculating first-differences, and standardizing predictor scales.
* Specified **Stan** models and utilized **Markov Chain Monte Carlo (MCMC)** sampling and convergence diagnostics to obtain posterior predictions and assess model fitting.
* Visualized and Interpreted model results to identify optimal model and quantify the influence of macroeconomic differentials on exchange rate dynamics with uncertainty.

**Stratigraphic Visualization for Pollen Analysis**

In collaboration with ecology researchers Dr. Melinda Higley and her team, our summer research team created stratigraphic visualizations that align with research standard using R.

**Statistical Modelling for Rain Garden Contaminants Research**

Faculty Advisor: Stacy DeRuiter; Collaborator: Cassandra Demlow

* To analyze the effects of rain gardens on soil contaminants, we fitted mixed effect **generalized linear models (GLM)** with contaminants Chloride, Iron, and Zinc, Phosphate as a function of rain garden age, percentage soil organic content, and pH.
* Phosphate and Chloride were modeled using gamma family and log link function while Iron and Zinc were modeled using binomial family with logit link function. Random effect of sample nested in sites is included.
* All models are fitted using R statistics in R studio.

**Automated Data Analysis: Internet Speed Test Research**

* Automate test run and data analysis using Linux system shell scripts and python workflow.
* Apply statistics tests to investigate how commercial internet speed test preform under different conditions.

**AI Development: Medical Translator using LLM API**

Developed a mobile translator for hospital setting with low latency, context-aware translations with structured output.

* Conducted 3 rounds of user testing to test accuracy, reliability, security, and accessibility.

**AI Development: Course Advisor Bot using LLM API**

Developed an AI chat bot that gives course scheduling suggestions. .

* Program leverages tool calls, MCP service and client to offer robust and reliable API communication.
* Agent supports multi-turn conversation and multi-language request.
* Conducted 3 rounds of user testings to ensure security and functionality.

**REFERENCES UPON REQUEST**