CHIHIRO MORI

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RESEARCH INTERESTS

Causal LLM, Responsible AI, and Citation Network Analysis.

TECHNICAL SKILLS

Languages: Python (NumPy, Pandas, Scikit-learn, NLTK, FastAPI, Flask), TypeScript, SQL, R, JavaScript, HTML/CSS, Java.

Developer Tools: React (Next.js), Tailwind CSS, PostgreSQL, AWS, Docker, Git.

Data & ML: Regression Analysis, Decision Tree Analysis, LightGBM, Exploratory Data Analysis (EDA), Social Network Analysis, NLP (Parse Trees).

Soft Skills: Research Presentation, Cross-functional Collaboration, Fluent English & Native Japanese.

EDUCATION, CERTIFICATIONS & AWARDS

University of Toronto, Trinity College | B.Sc. Computer Science | GPA: 4.0/4.0 **Expected June 2029**

- **Awards:** International Merit Admission Award (2025), JASSO Merit Scholarship (Japanese Government) (2025).
- **Relevant Coursework:** STA130 (Statistical Reasoning), CSC111 (Foundations of CS II).

Large Language Models I, Intensive Course | Matsuo-Iwasawa Lab, University of Tokyo **Jul – Sept 2026**

- Completed the lab's certified intensive program on the design and development of large language models, covering foundational theory through pre-training, fine-tuning, reinforcement learning, inference, and evaluation.
- Built an end-to-end understanding of the modern LLM development pipeline, directly supporting ongoing research on LLM-driven causal discovery.

Global Consumer Intelligence (GCI) Program | Matsuo-Iwasawa Lab, University of Tokyo **Aug 2025**

- Completed the lab's certified data science program (top 14% completion rate), developing an end-to-end employee performance-prediction model using LightGBM on the IBM HR Analytics Employee Attrition dataset.
- Engineered custom features and delivered a data-driven talent development proposal based on the model's findings.

RESEARCH EXPERIENCE

LLM Community Researcher (LLMATCH) | Matsuo-Iwasawa Lab, University of Tokyo **May 2026 – Present**

- Selected for the lab's LLMATCH community research program; building a foundation in LLM research with the support of the lab's researchers, conducting individual projects, and sharing findings with the community.
- Individual research: *"LLM-Driven Causal Discovery for Science-Technology Linkages: Evaluating Causal Coherence and Invention Impact in Generative AI Patents."*
- Positioned as initial validation toward a broader system predicting the real-world deployment timeline of AI technologies by integrating papers, patents, news, and policy documents.

Presenter | Trinity College Undergraduate Research Conference 2026 **March 2026**

- Presented a research proposal: *"Comparative Analysis of AI Innovation Ecosystems: A Citation Network Study of the University of Toronto and the University of Tokyo."*

Guest Research Student | Sakata-Mori Asatani Lab, University of Tokyo **May 2024 – Dec 2024**

- Delivered three research presentations on *"Group simulation in inquiry-based learning: optimal point between diversity of members & uniqueness of group."*
- Learned computational social science approaches: Linear Regression and Social Network Analysis.

TECHNICAL EXPERIENCE & PROJECTS

ClearPath | HackHarvard 2026 (Harvard University) **Oct 2026**

- Won an Honorable Mention in the Healthcare Track presented by Regeneron as part of a four-person team.
- Co-built a platform that combines regulatory and shipment data to flag delivery risks, automatically propose adjusted plans, and alert pharmaceutical teams to review changes before delivery deadlines are missed.
- Features a planner with a visual calendar and timeline of projected deliveries and delay risks (Chalk), alerts and role-based approvals over web and iMessage (Photon) with cited regulatory answers (Claude), route monitoring against NASA FIRMS fire detections and GDACS disaster alerts, and a regulatory database comparing labeling, storage, and import rules across countries (Grok).

- Devised the core concept of supporting cross-border shipping decisions for clinical-trial drugs shared across supply, regulatory, depot, and carrier teams, and sourced public logistics data (World Bank LPI 2023 customs dwell times, OurAirports gateways, holiday calendars).
- Built the planner's uncertainty layer in Chalk, computing best, likely, and worst-case delivery dates plus likely and safe ship-by dates for 24 countries to flag shipments at risk of delay.

Web Division Executive | University of Toronto Japan Network (UTJN) **Jan 2026 – Present**

- Architected and maintained the official UTJN website using a full-stack architecture (Next.js, FastAPI, PostgreSQL); deployed via Docker on AWS.
- Collaborated across Marketing, Finance, and Social teams to translate organizational needs into scalable user-facing features.

NLP Recommendation System (CSC111) | University of Toronto **Winter 2026**

- Engineered a book recommendation engine in Python using 75 Project Gutenberg novels.
- Extracted syntactic features (parse tree depth, lexical diversity) and built an interactive Flask interface with Plotly.

Healthcare Data Analysis (STA130) | University of Toronto **Fall 2025**

- Co-led a research project for Nucleus Independent Living, analyzing gender-based cost disparities across 4,000+ patient records.
- Applied R-based regression, decision tree analysis, and visualizations (histograms, bar charts, scatter plots, and summary tables) to identify differences in healthcare costs over time between genders.

FriendLink | NewHacks 2025 (IEEE) **Oct 2025**

- Built a social connection platform featuring a matching system and study rooms using Python and Flask.

LEADERSHIP & AI COMMUNITY

Conference Associate, ConferenceX | UofT AI, University of Toronto **Sept 2026 – Present**

- Selected for the organizing team of ConferenceX, Canada's largest student-led AI conference, which connects the University of Toronto community with leading researchers and practitioners in AI.
- Contributing across speaker outreach, attendee engagement, and day-of logistics, coordinating multiple workstreams toward a single large-scale event.

PUBLICATIONS & TALKS

Speaker, Paper&Hacks vol. 97 | Matsuo-Iwasawa Lab, University of Tokyo **Sept 2026**

- Presented *"Analyzing the Relationship Between Papers and Patents: Regression Analysis vs. Bayesian LLM-Integrated Causal Discovery"* at the lab's online paper-reading and implementation seminar.
- Covered the overall research design, a methodological comparison grounded in prior work, and the initial validation plan, followed by open Q&A.

Invited Speaker | Benesse Route H Information Sessions **2025, 2026**

- Presented on University of Toronto admissions and the JASSO scholarship.

Publication | The Nikkei Digital Edition **Aug 2021**

- Essay on satellite technology and art.

WORK EXPERIENCE

Individualized Instructor | Julius, Tokyo

- Tutored Math, English, Science, Social Science, and Japanese.

Attendant | TeamLab Planets, Tokyo

- Guided international and domestic visitors in English and Japanese, ensuring an engaging and safe experience in the immersive digital art exhibition.

EXTRACURRICULAR ACTIVITIES

Violin Performer | Arts and Culture LLC, Trinity College **Sept 2025 – Present**

- Performed solo and ensemble pieces (Spirited Away, Beauty and the Beast) at college talent shows.