Qingyun Qian (She/Her)

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EDUCATION

The University of British Columbia Sep. 2023 – Dec. 2026

- Bachelor of Science
- Majored in Computer Science (GPA: **3.9/4.0**, Average: **92.2%**)

Fujian Agriculture and Forestry University Sep. 2015 – Jun. 2019

- Bachelor of Laws
- Recipient of the Third-Prize Excellent Student Scholarship

PUBLICATION

- Guo, W. M., **Qian, Q.**, Hasan, K., & Du, S. (2025). Position: Universal Aesthetic Alignment Narrows Artistic Expression. *arXiv preprint arXiv:2512.11883.* **Spotlight at ICML 2026 (top 5%)**
    - Conducted large-scale empirical analysis of reward and evaluation models on both experimental AI-generated images and real artworks, revealing systematic preference biases against non-mainstream artistic aesthetics in aligned vision-language systems.
    - Participated in the iterative design and refinement of controlled negative-prompt experiments, with emphasis on variable isolation, methodological rigor, and robustness of evaluation settings.
    - Performed preliminary human evaluation studies to measure agreement between human annotations and model-based judgments, validating the consistency and limitations of automated evaluators.
    - Contributed to the paper's introduction, related work survey, real-art validation section, and ethical analysis discussing developer value imposition and pre-emptive governance in generative image systems.

RESEARCH EXPERIENCE

Research Assistant, UBC NLP Group, *Supervised by Dr. Peter West* May. 2026 – Present

- Research exploration in multimodal reasoning and interpretive behavior of Large Language Models
- Designed an experimental framework for analyzing interpretive diversity and semantic consistency across multimodal language models under open-ended visual reasoning settings.
- Built automated pipelines for synthetic data generation, cross-model response collection, embedding-based semantic analysis, and thematic clustering.
- Conducted preliminary studies on model creativity, ambiguity handling, and representation stability through comparative analysis of generated responses.

Research Assistant, BC ATUS | UBC & Environment and Climate Change Canada Oct. 2024 – Apr. 2026

UBC – OVI Lab & CliMR | *Supervised by Dr. Khalad Hasan and Dr. Mahmudur Fatmi* [Publication]

- Contributed to Wave 2 and Wave 3 travel-data collection, cleaning, and analysis, including:
    - Designed and implemented algorithms to impute missing trip-purpose, improving **data completeness with 11.2% relative improvement**
    - Developed and implemented algorithms to detect and remove redundant indoor movement (e.g., within-building walking loops) and to filter erroneous GPS readings caused by signal instability
    - Designed and implemented merging algorithms that combine fragmented trip segments (e.g., transit vehicle stop-and-go interruptions
- Developed iOS app (App Store) tracking travel behavior of **500+ users** across Metro Vancouver and Okanagan, **collecting 12.6K+ trips** for government transportation policy
- Built a weighted-duration transport classifier with **78.23% walking accuracy** across 5 modes using

CoreMotion.

- Automated **95%+ trip data processing** via intelligent merging, reducing workload and improving quality
- Built Python scripts, **cutting processing time by 50%** for large-scale transportation behavior analysis

Research Assistant — Computational Creativity | *Supervised by Dr. Liane Gabora* Sep 2024 – Nov 2024

- Performed literature synthesis on computational humor, poetry, and story to support a forthcoming book chapter on computational creativity.
- Summarized major systems (FunLines, Oogiri/CLoT, Unfun.me, early neural humor models) and analyzed their creative mechanisms.
- Integrated creativity evaluation frameworks (4P, FACE/IDEA) to help build the chapter's theoretical structure.

PROJECTS

AI-Powered Exam Generation and Analysis Platform May 2025 – Aug. 2025

Tech Stack: React + Tailwind + Node.js + Prisma + PostgreSQL + Docker | **Architecture**: Microservice

- Automated university exam generation using semantic question recommendation based on cosine similarity of BERT-encoded vectors, powered by a locally deployed HuggingFace model (prajjwal1/bert-tiny).
- Reduced redundant similarity computations by 85–95% through time-versioned caching.
- Containerized the similarity model using Docker and deployed it as an **isolated microservice**, decoupled from the frontend and database, with backend APIs orchestrating data flow.
- Designed a logic-preserving question shuffling algorithm using dependency chains and similarity clustering to maintain consistent flow and difficulty across variants.
- Optimized option shuffling performance by implementing precomputed permutation pools for common cases (2-5 options), reducing algorithm complexity from O(n!) permutation generation to O(1) lookup for 80% of use cases, achieving up to **24x performance improvement** for 5-option questions.

Open Source Contribution | TikTok, Coze Loop **(5K+ Stars)** July. 28, 2025

- Secured Coze Loop (AI agent optimization platform) by preventing accidental API key exposure.
- Streamlined multi-model configuration templates aligned with Coze Studio ecosystem.

First Place and Most Accessible Hack | ExpressiWay (Emoji-based Chatroom) Feb. 8, 2025 – Feb. 9, 2025

- Secured First Place and Most Accessible Hack at Okanagan's **largest hackathon** by building an inclusive, real-time chat platform (Python/Flask backend, JavaScript/HTML/CSS)
- Integrated Gemini API to enable non-verbal communication (Emojis, Kaomoji), removing linguistic barriers.