Cameron Beattie

cameronbeattie306@gmail.com — +1 (306) 260-2385 —
https://cameronbeattie306.github.io/cameronbeattie/ — Saskatoon, SK

Summary

Graduate Computer Science student specializing in HCI. Experienced in Python, C, Java, and JavaScript with Linux, multithreading, debugging, Git, and high-performance data pipelines. Strong technical communicator and team player, adept at mentoring and collaborating on complex software projects.

Education

Master of Science in Computer Science (HCI Lab) *Sep 2025 – Spring 2026*
University of Saskatchewan

Bachelor of Science Honours in Computer Science *Sep 2021 – May 2025*
University of Saskatchewan
High Honours; NSERC USRA (2025); Dean's List (2022-2023)

Skills

Programming: C, Python, Java, JavaScript, Bash, R
Systems/Tools: Linux/Unix, multithreading, Computer Networks, debugging, Git, Docker, JUnit, Node.js
Data/Analysis: High-performance data structures, NumPy, Pandas, R
GUI/Software Design: UI/UX design, event-driven programming, GUI prototypes (JavaFX, web-based)
Soft Skills: Technical communication (written and verbal), teamwork

Experience

Undergraduate Research Assistant (HCI Lab) *May–Aug 2023, 2024, 2025*
- Designed and implemented experimental systems in Python, Java, and JavaScript; focused on performance, reliability, and data collection.
- Built automated data pipelines and prototypes; applied algorithms for efficient data processing.
- Analyzed behavioral datasets; co-authored three papers emphasizing documentation and reproducibility.

Teaching Assistant – CMPT 381 & CMPT 145 *Sep–Dec 2025, Jan–Apr 2026*
- Delivered tutorials, debugged projects, and provided mentorship in programming and software design.
- Supported 60–160 students, reinforcing debugging and best practices.

Selected Projects

BEAP Engine Web Application Link to Repository
- Modernized a data ingestion pipeline in Python and Docker for wearable sensor data; improved processing speed and maintainability.
- Applied software engineering best practices: automated testing, Git version control, and documentation.

Multiplayer Networking Architecture – Snake Game: Link to Repository
- Implemented and benchmarked client-server, host-based, and distributed networking models in JavaFX.
- Evaluated latency, reliability, and scalability under simulated network conditions.
- Applied multithreading to ensure smooth gameplay and responsiveness.

Understanding and Improving the Performance of Action Pointing: Link to Paper
- Investigated a new interaction technique for moded actions through exploratory prototypes.
- Designed and ran 3 user studies, analyzed data, and co-authored a published paper.

Investigating the Design and Performance of Letter Chords:
- Researched a novel typing technique using letter chords for command entry.
- Built study tools, analyzed user performance, and collaborated on a research paper.
- Presented research at Research Fest 2025 and SURE 2025

References

Available upon request