MAHTA GHORBANIAN

Calgary, AB | 403 970 3511 | mahta.ghorbanian@gmail.com | Portfolio | LinkedIn | GitHub

PROFESSIONAL SUMMARY

Software engineer with an M.Sc. in Computer Science. Built Python and C# tooling at the University of Calgary and the City of Calgary, including raising change-impact detection recall from 21.8% to 48.2%. Works with React, Django, and SQL, and has reviewed and tested other people's code as a teaching assistant and AI code evaluator.

TECHNICAL SKILLS

Programming: Python, JavaScript, SQL, Java, C#
Data & GIS: Excel, Power BI, Tableau, ArcGIS feature services, JSON, data cleaning, reconciliation
Development: React, Django, MySQL, PostgreSQL, .NET, Windows Forms
Automation & QA: Power Automate, SharePoint, Playwright, Selenium, Cypress, JUnit, GitHub Actions
Methods: Agile, OOD, UML, design patterns, CI/CD, requirements discovery, human-in-the-loop validation

PROFESSIONAL EXPERIENCE

Exceptional Software Engineers (Coding Agent Experience) | Mercor (Part-Time Contract) **OCT 2026 – Present**

- Wrote programming tasks, reference solutions, and test suites used to benchmark and fine-tune LLM coding ability.
- Tested AI-generated code against unit tests, edge cases, and performance benchmarks.
- Wrote code reviews and error analyses explaining where model reasoning broke down on multi-step problems.
- Covered algorithmic and general software engineering problems, with written documentation for each task.

Asset & Capital Project Data Assistant (Intern) | City of Calgary **May 2026 – Aug 2026**

- Transformed fragmented historical asset-naming information into a GIS-ready dataset by reviewing 1,713 records and 7,494 supporting PDFs spanning reports, attachments, and approval documents.
- Added 394 verified assets to a central Excel inventory and uploaded 254 to the GIS map, reaching 64.5% completion while preparing 140 remaining assets for verification and location research.
- Developed Python workflows for folder and PDF crawling, metadata extraction, document ordering and merging, standardized filenames, title-image generation, GIS feature matching, attachment preparation, and detailed error logging.
- Applied dry runs, single-record and small-batch testing, reconciliation, exception handling, and manual review to prevent incorrect matches across historical records, Excel data, and current GIS features.
- Identified an ArcGIS feature-service endpoint with browser Developer Tools, transformed JSON records into Excel with Python, and supported comparison with Power BI and project-control data.
- Documented the end-to-end workflow, delivered knowledge transfer, and presented the project at the City of Calgary GIS Summer Student Showcase.

Software Research Engineer | LSMR, University of Calgary **May 2022 – Apr 2026**

- Led work from architectural design through implementation, presenting technical proposals and collaborating with research and industry stakeholders.
- Built a Jira export capability that generated Epics and Stories and calculated Story Points from cyclomatic complexity to support effort estimation.
- Improved change-impact detection recall from 21.8% to 48.2%, a 2.2x increase over the baseline, through quantitative validation and system enhancement.
- Enhanced interactive C# and Windows Forms components and developed a full-lifecycle integration between an academic analysis tool and an industrial C# application.

Teaching Assistant | University of Calgary **Sep 2021 – Apr 2026**

Courses: DATA 201 | SENG 300 | CPSC 217 | CPSC 219 | CPSC 251 | CPSC 351

- Led labs and tutorials in Python, data analysis, Java, software engineering, requirements, UML, testing, Tableau, and Power BI.
- Conducted code reviews and provided actionable feedback on quality, readability, design, and performance.
- Instructed more than 1,000 students and collaborated with faculty to align tutorials with course objectives.

EDUCATION

Master of Science, Computer Science | University of Calgary, Alberta
Bachelor of Science, Software Engineering | Ferdowsi University

CERTIFICATIONS & AWARDS

- Transformative Talent Internship (TTI) WIL & Completion Award, Faculty of Graduate Studies, University of Calgary | May 2026
- Data Analyst Associate, DataCamp | SQL, Power BI, DAX, and data visualization coursework
- Product Management Job Simulation and Software Engineering Job Simulation, Electronic Arts