Shanna Hollingworth

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EDUCATION

- **University of Calgary** — Calgary, Canada
  MSc in CS (Human Computer Interaction): Thesis-Based (Supervisor: Dr. Wesley Willett) — *Jan. 2024 – Dec. 2025*
  - **Alberta Graduate Excellence Scholarship (AGES) 2024**: $11,000 award which recognizes outstanding academic achievement in graduate studies.
  - **Wendy Powell Woman of Inspiration Award 2024**: Awarded by CAN-CWIC (Canadian Celebration of Women in Computing) to a self-identified female student in a Computer Science program who has inspired young women to explore technology and/or to pursue careers in technology.

- **University of Calgary** — Calgary, Canada
  Bachelor of Science in Computer Science Honours, Minor in Data Science — *Sept. 2018 – June. 2023*
  - **President's Award Nominee**: Nominated by the Department of Computer Science upon graduation for demonstrating academic achievement with outstanding co-curricular contributions to the university.

RELEVANT WORK EXPERIENCE

- **Memory Anchor** — Calgary, Canada
  Data+AI Specialist — *Oct 2023 - Feb 2024*
  - **Vector Search**: Improved performance and matching accuracy from computer vision output to csv datapoints by refactoring the internal search engine to utilize NLP vector search *(OpenAI Embeddings API)*
  - **Dashboard Development**: Provided customers with insight into interesting data trends by developing impactful and dynamic data visualizations for a web based data dashboard *(JavaScript, React)*
  - **Augmented Reality Development**: Developed mobile Augmented Reality features to be compatible with a new version of the app by shifting from Unity to a more native approach. *(React Native, Viro)*

- **Cisco** — Calgary, Canada
  QA Software Engineer Intern — *May 2021 - August 2022*
  - **Automated Testing**: Minimized potential issues in code before release to public by triaging and debugging regression tests, smoke testing on Mac and Linux platforms, writing continuous integration pipelines, and writing tests for the unit testing suite. *(Jenkins, Ruby, RSPEC)*
  - **Web Scraping**: Ensured timely platform releases by automating the daily scraping of Apple/Linux distribution websites and sending mass notifications via email and Webex. *(Ruby, BASH)*
  - **Database Management**: Stored and visualized daily database information about product performance *(SQL, Ruby and RESTful API)*

RESEARCH EXPERIENCE

- **Towards Glanceable On-Demand AR Conversation Visualization** — University of Calgary
  Supervisor: Dr. Wesley Willett — *April 2024 - August 2024*
  - **Description**: Exploration of visualization and NLP challenges for lightweight and on-demand conversational tools in Augmented Reality, with a focus on real-time conversational timeline generation.
    * **Published and presented as a poster**: VIS 2024
    * **Published and presented NLVIZ workshop paper on NLP challenges of project**: VIS 2024

- **FluencyAR: Augmented Reality Language Immersion** — University of Calgary
  Supervisor: Dr. Wesley Willett — *Sept 2023 - July 2024*
  - **Description**: An undergraduate honours research project for an AR language learning system which studies the combination of generative AI, object recognition and AR visualization to improving conversational fluency for intermediate level language learners. Developed with Unity, Microsoft Azure Speech Services, and ChatGPT API.
  - **Design of Mixed Reality Application Course**: As part of this course, I worked on the research and design of the object recognition component of FluencyAR under the direction of Dr. Ryo Suzuki.
    * **Published and presented as a poster at UIST 2023**: https://dl.acm.org/doi/10.1145/3586182.3616670

- **Wallie: Mental Health Robot** — University of Calgary
  Course Instructor: Dr. Ryo Suzuki — *Jan 2023 - April 2023*

- ○ **Description**: Completed the full research and development cycle of as well as prototyping a 3D printed social robot to act as a mental health companion, as part of a course project. The robot would use the psychological methods of positive psychology, self-disclosure, and problem solving to build trust with and connect with the user. Developed with the ChatGPT API, JavaScript, HTML, CSS.

- **Artificial Intelligence For Public Health** — University of Calgary
  Program Director: Dr. Ryan Burns — *May 2021 - August 2021*
  - ○ **Description**: Part of a program partnered with the data science for social good program in Seattle, involving working in a team to design a artificial intelligence solution for health care routing in Malawi. I led and contributed to a sub-project to implement our solution into a VR training environment using Unity, where we imported GIS data from the city into the scene, and programmed an immersive driving experience through city based on a path defined by the AI team.

SERVICE

- **Women in Computer Science** — University of Calgary
  President + CoFounder — *Oct 2023 - Feb 2024*
  - ○ **Duties**: Spearheaded creation of the club, authored the constitution, and interviewed and hired the first exec team. Also secured $1000 annual funding from a local company and oversaw social and personal development events.

- **Competitive Programming Club** — University of Calgary
  VP Operations — *Jan 2024 - Present*
  - ○ **Duties**: In charge of the 2-day 2024 Rocky Mountain Regional Qualifier Contest (RMC) for the International Competitive Programming Contest (ICPC). Organized a large scale catered banquet, and obtained sponsorships and donations from multiple local businesses.

- **Chinese Language Conversation Club** — University of Calgary
  President, previously VP Events — *May 2020 - April 2022*
  - ○ **Duties**: Planned and hosted weekly 1.5 hour long educational online events through COVID-19 which maintained 15-20 participants a week, and up to 50 participants for special events. As President, increased club budget by 300% through implementation of club membership, and a sponsorship from a local language learning company

PROGRAMMING SKILLS

- **Languages**: Java, Ruby, Bash, Python, C++, C#, JavaScript, HTML, CSS

- **Technologies**: Firebase, Android Studio, React Native, React, Unity, Blender, Jenkins, Github

OTHER WORK EXPERIENCE

- **University of Calgary** — Calgary, Canada
  Teaching Assistant — *Jan 2023 - Present*
  - ○ **Duties**: Teaching, grading assignments and exams, and assisting students with coursework.
    - ∗ **Fall 2024**: CPSC 583 (Intro to Information Visualization)
    - ∗ **Winter 2024**: CPSC 233 (Intro to Computer Science 2 for Majors - Java)
    - ∗ **Winter 2023**: CPSC 217 (Intro to Computer Science 1 for Non-Majors - Python)
- **Save on Foods** — Airdrie, Canada
  Deli Associate, Ecommerce Associate, Barista — *Oct 2016 - Apr 2021*
  - ○ **Awards**: Recipient of **2018 Team Member Scholarship($1000)**, based on contributions to the store as a team member and engagement in the community.
  - ○ **Deli, E-Commerce, Starbucks**: Worked in multiple departments with great flexibility as staffing required.