

Jacob Polay

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PhD Student – Early Modern & Digital History

Education

Doctor of Philosophy, History

University of Saskatchewan

September 2026 – Present

Master of Arts, History

University of Saskatchewan

September 2024 – June 2026

- Thesis: Loud Yet Invisible: A Humanist-Designed Pipeline for Unlocking the Early Modern Archive

Bachelor of Arts, First Class Honours, History

University of Calgary

January 2020 – June 2024

- Thesis: A Common Place: Place-making in Gerrard Winstanley's Vision of the English Commons

Publications

Clifford, Jim, Jacob Polay, Jessica Jack, Mark Humphries, and Lianne C. Leddy. "Reading the Archive by Machine: an OCR Benchmark for Historians, 1612–1921," *Working Papers in Critical Search* no. 4 (2026).

Polay, Jacob, Chloë Farr, and Jessica Jack. "The Archive is Not a Toy: The Hidden Problems of a 'Vintage' AI." *Active History*, July 13, 2026. <https://activehistory.ca/blog/2026/07/13/the-archive-is-not-a-toy-the-hidden-problems-of-a-vintage-ai/>.

Polay, Jacob. "Circumventing the Garbler," *Intersections* vol. 8, no. 1, Canadian Historical Association (2025): 28.

Presentations and Lectures

Fitting Machine to Page, Jacob Polay and Keith Pemberton, AI and History Conference 2026, October 16, 2026.

- Demonstrated ideal practices in OCR and NER at an official American Historical Association conference of the leading users of AI for historical methods.

Reading the Unreadable: Optical Character Recognition of Early Modern Print, Jacob Polay, Canadian Society for Digital Humanities, June 4, 2026.

- Presented two chapters of my master's thesis to the largest gathering of digital humanists in Canada.

Solving OCR: Using olmOCR to Follow Commodities across the British World, Dr. Jim Clifford and Jacob Polay, Environmental Digital Humanities Seminar, March 11, 2026.

- Presented research in Optical Character Recognition to 30+ people, including leaders in the Digital Humanities field.

Academic & Professional Experience

Research Assistant | University of Saskatchewan September 2025 – Present

- Curated thematic reading lists across multiple historical fields, previously unknown to me.
- Transcribed and entered data from a historical township registry into structured Excel spreadsheets for analysis.

Teaching Assistant | University of Saskatchewan September 2024 – April 2025

- Led weekly seminars, facilitating discussion and critical analysis of historical scholarship with students.
- Assessed written work and student participation, providing constructive feedback to support student development.
- Supported inclusive classroom environments and assisted with course administration.

IT and Data Manager | Rare Events July 2022 - Present

- Managed deployment and maintenance of large-scale digital payment systems under strict time constraints.
- Designed and maintained sales and inventory databases supporting events exceeding \$400,000 in revenue.
- Supervised staff and coordinated rapid technical troubleshooting during live operations.

Research Assistant | Calgary Institute for the Humanities May 2022 – Sept. 2022

- Conducted archival research at the Glenbow Archives.
- Synthesized archival information into an analytical essay, assisting in the creation of an Energy History map of Alberta.

Museum Interpreter | East Coulee School Museum May 2021 – Sept. 2021

- Interpreted local and regional history for public audiences.
- Managed archival materials and cataloguing software.
- Contributed to exhibit development for display within the museum.

Awards and Scholarships

Ivo Lambi Memorial Scholarship in History, University of Saskatchewan — 2025 (\$1000)

Terrance L. Cameron Award, University of Saskatchewan — 2025 (\$3500)

Dr. Stephen J. Randall Prize in History, University of Calgary — 2024 (\$500)

Wing Kin Wong and Lambert H.C. Wong Memorial Bursary, University of Calgary - 2023 (\$2100)

Jason Lang Scholarship, Government of Alberta — 2022, 2023 (\$1000 each)

Skills

Languages:

- English — Native Fluency
- Latin — Reading knowledge (beginner)

Relevant Coursework & Training

- Graduate seminars in historiography, historical methods, and historical writing.
- Honours research seminars emphasizing independent archival research and writing, including intensive directed reading comparable to a junior comprehensive reading course.
- Upper-level study in early modern England, Atlantic World history, and global urban history.
- Training in spatial and digital history, including undergraduate GIS coursework.

Research & Digital Methods

- Archival transcription and data entry
- Optical Character Recognition Software (Transkribus, olmOCR, Tesseract)
- Named Entity Recognition and text-as-data workflows
- Graph databases (Neo4j)
- Python for historical data processing
- Historical GIS (ArcGIS Pro)
- Large Language Models for historical analysis

Research Interests

Early Modern Atlantic World; Commodity and Environmental History; Digital History and Historical GIS; Artificial Intelligence and Historical Methodology