Luotong Cheng

Digital Humanities Researcher

Dedicated MA Digital Humanities and BA Art History graduate with strong interdisciplinary expertise. Skilled in digital methodologies, art historical analysis, and cultural data visualization. Proficient in tools such as Python, databases, Linked Data, and Semantic Web Technologies. Passionate about leveraging technology to preserve cultural heritage and provide innovative solutions.

Contact

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Previous Projects

- Analysis of U.S. Presidential speeches to examine linguistic style evolution and topical trends (https://presidentspeechproject.my.canva.site/)
- Analyzing Joe Biden's presidential speeches from 2021 to 2023 to uncover themes and trends in political discourse (https://github.com/LuotongCheng/Collecting-Data-GroupA)
- Thesis Project: Metadata Assessment and Enrichment (https://github.com/LuotongCheng/DCHM-Metadata-Assessmenet-Enrichment)

Skills

- Communication and Teamwork
- Critical thinking and problem solving
- Data Collection and Analysis (Python, NLP, topic modelling, web scraping, statistic analysis, machine learning, visualisation, network analysis, etc.)
- Metadata Management
- Database Design (SQL)
- Semantic Web and Linked Data Technologies (RDF, RDFS, OWL, SPARQL, JSON-LD, XML, ontology, CIDOC CRM, FRBRoo)
- Web Design (html, css.)

Language

- **English:** Fluent (C2)
- **Chinese:** Native Speaker
- **Dutch:** Beginner (A1)

Education

MA Digital Humanities - University of Groningen

Groningen, Netherlands

September 2023 - August 2024

- Program Summary: An interdisciplinary program focusing on integrating digital technologies with humanities research, with a theoretical critical reflection on the digital turn in humanities.
- Key Courses: Data in Society, Database Design, Collecting Data, Analysing Data,
- Master Thesis: "Metadata Assessment and Enrichment: FAIRification of the Digital Collection of Historical Maps in the University of Groningen Library"
- Thesis Grade: 9.5
- Skills: Data collection, data analysis, digital archiving, programming (Python), relational database, linked data, semantic web technologies, GIS.

BA Art History - University of Groningen

Groningen, Netherlands

September 2020 - June 2023

- Program Summary: Explored intricate connections between visual arts, urbanism, architectural history, and landscapes, examining their interplay within environments.
- Key Courses: Cultural Heritage in Landscape & Architecture, Art & Institutions, Architecture, Nature & Enlightenment, Perspectives in Art Theory.
- Bachelor Thesis: "The Monstrosity in the Miniature and Marginalia in Medieval Manuscripts: A Study of Otherness in the Middle Ages"
- Thesis Grade: 8.5
- Skills: On-site case studies and interview stakeholders,
- Award: Graduated with Honors (Cum Laude) from the Department of History of Art, Architecture and Landscape at the University of Groningen

Experience

Research Assistant: Knowledge Representation and Ontology Modelling - University of Groningen

Groningen, Netherlands

July 2024 - Present

- The "Graphs and Ontologies for Literary Evolution Models" (GOLEM) aims to create ontology models of how cultural traits of fiction spread and combine. Project link: https://golemlab.eu/about/
- Engaged in discussions with the GOLEM team to explore and apply conceptual modeling using CIDOC CRM, LRMoo, and DOLCE ontologies and designed and adapted an ontology specific to the project needs for representing fiction and narrative data.
- Implemented fan-fiction data from AO3 into Protégé, ensuring accurate representation and integration with the ontology and performed data cleaning tasks for the GOLEM knowledge graph, handling approximate 10,000 triples to ensure data quality and consistency.
- This experience improved my skills in ontology design, data modeling, and collaborative research. It underscored the importance of conceptual modeling and data quality in developing robust knowledge representations, critical for understanding the cultural evolution of fiction.

References

Dr. Federico Pianzola

- Assistant Professor, Computational Humanities, Centre for Language and Cognition, University of Groningen
- f.pianzola@rug.nl
- +31 6 3198 4081

Dr. Franziska Pannach

- Assistant Professor, Centre for Language and Cognition, University of Groningen
- f.a.pannach@rug.nl
- +31 50 36 35974

Research Assistant: Ontology Modelling and Linked Data - University of Groningen Library
Groningen, Netherlands
July 2024 - August 2024

- Engaged in the project to create an interactive website for travelogues of Groningen students' trips through Germany in the 19th century.
- Conducted a comprehensive review of existing data models and ontologies, identifying the most suitable classes and properties for the project or created and tailored an ontology to model all necessary information.
- Developed a working example of linked data by combining the ontology with a sample of data
- Maintained regular communication with domain experts to validate the ontology's completeness and expressiveness, making necessary adjustments based on feedback.
- This experience enhanced skills in data modeling, ontology development, and interdisciplinary collaboration.

Intern: Metadata Management - University of Groningen Library
Groningen, Netherlands
February 2024 - May 2024

- Assessed and enriched metadata for 900 digital historical maps to enhance the collection's findability, accessibility, interoperability, and reusability (FAIR principles).
- Conducted functional engineering activities, including interviews and surveys, to gather requirements from stakeholders, including librarians, metadata providers, professors, and history and cartography experts. Communicated with interdisciplinary departments (IT, Innovation, and Research).
- Utilised International Image Interoperability Framework (IIIF) to enhance interoperability and provide high-quality images through an IIIF image viewer. Managed metadata on the CONTENTdm platform.
- Established workflows for enriching metadata and conducted a feasibility assessment. Developed an ontology model for semantic metadata enrichment.
- This internship provided valuable hands-on experience in metadata management. It also enhanced collaboration and communication skills through interdisciplinary teamwork.