Vlad Atanasiu

French & Romanian
citizenships
Swiss residency (C)

Postgasse 38
3011 Bern
Switzerland
T +41 76 242 8118
atanasiu@alum.mit.edu
http://waqwaq.info

Ph.D. Ph.D.
Associate Researcher
Digital Humanities
University of Bern
Switzerland
https://www.dh.unibe.ch

Résumé 2026.03.19

Profile

I am an interdisciplinary Ph.D. with a proven track record of bridging Computer Science, the Humanities, and Graphic Design. My core expertise lies in the computational analysis of writing and documents through the integration of image processing, machine learning, and perceptual psychology. I augment these research methodologies with information visualization, data science, natural language processing (NLP), and geographical information systems (GIS). This technical breadth is supported by extensive professional experience in software engineering, full-stack web development, and graphic design.

Core Competencies

Computer Science: Handwriting & document analysis, image processing, machine learning, data quality, statistics, information visualization, human–computer interaction, geographical information systems, full-stack development, and robotics

Programming & Tools: Scientific & Engineering: Matlab, Python, ESRI ArcGIS, Aseba for Thymio robots, Unix shell, MOS 6510 assembler — Web & Data: JavaScript (D3), Processing, PHP, SQL (PostgreSQL, MySQL), XML, HTML, CSS — Creative: Adobe InDesign (IDML scripting), FontLab, Blender, LaTeX

Cognitive Sciences: Visual perception, color science, and visual illusions

Humanities: Paleography, history of typography, lexicography, Middle Eastern studies, and science and technology studies

Graphic Design: Book layout (InDesign), logo, font, & website design, photography

Languages: Multilingual (English, French, German, Romanian, Arabic, Persian), with notions of Italian, Japanese, Hebrew, and Turkish

Selected Professional Experience

Computational Handwriting & Document Analysis: Script Design: Machine-learning-based design (University of Fribourg). — Legibility Enhancement: Using chromatic effects & visual illusions for examining papyri (University of Basel). — Forensic Analysis: Writer retrieval from handwriting datasets (Télécom ParisTech), and paper expertise software (Austrian Academy of Sciences, National Library of the Netherlands).

Information Visualization & NLP: Lecturer: Taught information visualization for the humanities and sciences at the Universities of Graz and Fribourg. — NLP & GIS: Ontological segmentation of historical Swiss phonebooks (PTT-Archive) and identification of placenames (Austrian Academy of Sciences).

Full-Stack Development & Project Management: Web applications: Developed the online historical Swiss phonebooks (PTT-Archive), an online atlas of Iran (CNRS Paris), and the first web-based collection of Arabic-script manuscripts (ÉPHÉ Paris). — Leadership: Co-coordinated the €3M European Commission project Bernstein, a consortium of nine institutions.

Graphic Design: Designed book layouts & visual identities for Éditions l'Harmattan, transcript Verlag, & infoclio.ch; created fonts for Oxford University Press.

Education

Ph.D. Computer Science, University of Fribourg, Switzerland (2023)
Post-Doc Art History & Cognitive Science, Massachusetts Institute of Technology, USA (2003–2005)
Ph.D. History & Art History, École Pratique des Hautes Études, Paris (2003)
M.A. Linguistics, University of Provence, France (1995)

Publications & Impact

Books: Calligraphy and Letter Frequencies (grapholinguistics), Expert Bytes (document forensics), Ugraphia (legibility)
Articles: 30+ peer-reviewed scientific publications
Software: Rex (handriting analysis), Hierax (legibility enhancement), Document Towers (3D visualization), AD751 (paper expertise)
Funding: Secured over €3,100,000 in research grants.