Shuai Wang

Computer Scientist

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Education

11/2024 - 05/2026

MBA: Management of Research Infrastructures

University of Milano-Bicocca

Project Management ▪ Research Infrastructures ▪ Strategic Management.

06/2017 - 05/2022

Ph.D. Artificial Intelligence

Vrije Universiteit Amsterdam (VU)

Linked Data ▪ Knowledge Graph ▪ Refinement ▪ Algorithm Development ▪ Semantic Web.

09/2015 - 08/2017

MSc Logic (computation track)

University of Amsterdam (UvA)

Knowledge Representation ▪ Information Theory ▪ Dynamic Epistemic Logic ▪ Machine Learning.

Biography

I am currently a scientific engineer at the FAIR Expertise Hub where I promote FAIR principles and FAIR Implementation in communities in social sciences and humanities in the Netherlands. I am also the department data steward. From March, I will join the GO FAIR Foundation and Maastricht University.

Work experience

Part-time Freelance — **GO FAIR Foundation**
2025 - present

I will be working on the FAIR2Adapt project under close supervision by Barbara Magagna. We will contribute to tasks in WP to co-develop an I-ADOPT framework for aligned annotation service.

Research Software Engineer / University Software Steward — **Maastricht University**
2025 - present

I will be working for the Maastricht University under Mariëlle Prevoo in two teams led by Pedro Hernández Serrano and Chris Kuipers, respectively.

Scientific Engineer (2022 - present) **Data Steward (2023 - present)** — **Vrije Universiteit Amsterdam**
2023 - 2025

Since June 2022, I work as a research engineer at the User-Centric Data Science group. I work with Angelica Maineri, Jacco van Oseenbruggen, and Ronald Siebes in the project "Building a FAIR Expertise Hub for the social sciences". I also serve as the department data steward.

PhD student & teaching assistant — **Vrije Universiteit Amsterdam**
2017 - 2022

I performed some comprehensive analysis of very large integrated knowledge graphs; developed hybrid refinement algorithms at web scale. I have published papers at top A.I. conference venues such as ESWC. I have also been a teaching assistant for Deep Learning, Intelligent Systems, and A.I. in Health, etc.

Professional Experience

Research internship (4 months) — **French National Research Council**
Summer 2016 LAAS-CNRS, the Aerospace Valley, Toulouse, France.

This research internship was in a humanoid robotics group where I studied path planning for multiple robots to escape from a crashed airplane in simulation. The result was presented as a demo at the BNAIC conference.

Research internship (6 months) — **INRIA Paris-Rcquencourt**
Spring-Summer 2015 French National Institute for Research in Computer Science and Automation (INRIA), Paris, France.

I modified the kernel of a higher-order logic theorem prover, with which I transformed a large set of proofs. The transformed proofs were checked using a specific proof-checking program, the Dedukti. I also implemented ProofCloud.

08/2012 - 07/2014

BSc Artificial Intelligence (first class ≈ cum laude)

University of Manchester

Machine Learning ▪ Verified Development ▪ Natural Language Processing ▪ Algorithms.

Teaching

- Deep Learning (2021), second year MSc A.I. and MSc Business Analytics, VU.
- A.I. in Health (2020), MSc A.I., VU&WUST (online).
- Intelligent Systems (2020), first year BSc A.I., VU.
- Knowledge Representation (2017), first year MSc A.I., VU.

Supervision

- Bachelor Thesis: I was involved in the supervision of 10+ bachelor's theses.
- Master Thesis: I was involved in the supervision of 4 master's theses.

Honors

- Open Science Community Amsterdam Awards (OSCA)
- Doctoral Grant (by NWO TOP)
- MPRI-INRIA scholarship

Languages

Chinese	Native
English	C1
French	A2-B1
Dutch	A1-A2

Professional Skills

- Linked Data Analysis/Management: linked (open) data, large scale knowledge graph, ontology analysis, data integration, alignment, data validation and refinement, data/knowledge management, knowledge engineering, etc.
- Graph analysis: graph features analysis, cycle resolving (feedback arc set), evaluation matrices, centrality, clustering, etc.
- Machine Learning: behavior learning, Turing Learning, etc.
- Software Engineering: agile development, modelling, project management, etc.
- Mathematics: statistics, probability, linear algebra, matrices and tensors, etc.
- Logic: SAT/SMT solving, automated reasoning, first/higher order logic, verification, and proof checking, etc.

Technical Skills

Tools and Utilities for Data/Knowledge Graphs

- Data Processing: pandas, numpy, networkx, scipy, pymetis, Google Sheets, etc.
- Data Query: SPARQL, PyHDT, rdflib, etc.
- Data Formats: CSV, HDT, RDF (Turtle, N-Triples, OWL), XML, JSON, WebGraph, FASTA/BPSEQ, OpenTheory, Dedukti, etc.
- Data Publishing: TriplyDB, Zenodo, YODA, Figshare, etc.

Tools for Modelling, Simulation, and Agent Systems

- Modelling and Visualisation: Blender, Matplotlib, CSS/HTML, JavaScript, Google Map/Slides, LaTeX, Prezi, Canva, etc.
- Simulation: ENKI, HPP, Netlogo, etc.
- Hardware: Raspberry Pi, Leap Motion, etc.
- Interaction: Bluemix Conversation API (IBM Watson), etc.

Generic Tools and Platforms

- Platforms: TensorFlow, PyTorch, Django, Heroku, etc.
- Programming Languages: Python, OCaml, C++, Java, etc.
- Utilities and Tools: ChatGPT, Atom, Protégé, Github, Jupyter Notebook, etc.

Recent Research Results

- N. K. Singh, S. Wang, A. Maineri, R. Siebes, M. Bruyneel, T. Hofstra, S. van de Sandt, R. Siebes, J. van Ossenbruggen, T. Kuhn "Aligning Data Management Plans with Community Standards using FAIR Implementation Profiles", MTSR, 2024
- S. Wang, M. Adamidou "Examining LGBTQ+-related Concepts in the Semantic Web: Link Discovery, Concept Drift, Ambiguity, and Multilingual Information Reuse", EKAW, 2024.
- S. Wang, A. Maineri, N. K. Singh, and T. Kuhn, "FAIR Implementation Profiles for Social Science", MTSR, 2023
- S. Wang, J. Raad, P. Bloem, and F. van Harmelen, "Refining identity graphs with the Unique Name Assumption", ESWC, 2023
- S. Wang, J. Raad, P. Bloem, and F. van Harmelen, "Refining transitive and pseudo-transitive relations at web scale", ESWC, 2021.

The full CV is attached.
Visit `https://shuai.ai` for more details (and my art)!