

Shuai Wang

Introduction

Currently in my final year of Ph.D. in Artificial Intelligence, I am looking to invest my skill set into a professional role involving Artificial Intelligence, Machine Learning, Data Science, or Robotics, starting from early 2022.

Formal Education

2022 **Ph.D. Artificial Intelligence** *Vrije Universiteit Amsterdam (VU)*

Abstract My Ph.D. is funded by the NWO TOP grant. I study very large knowledge graphs at web scale. I design algorithms for analysis and refinement, etc.

2017 **MSc Logic (computation track)** *University of Amsterdam (UvA)*

I completed my master with a thesis on Machine Learning where I combined Turing Learning with Nash Memory for better accuracy in the learning of robot behavior.

2014 **BSc Artificial Intelligence (cum laude)** *The University of Manchester (UoM)*

Professional Experience

Internships

Summer 2016 **Multi-agent Multi-contact Planning (4 months)** *LAAS-CNRS, The Aerospace Valley, Toulouse, FR*

My internship was to study the simulation of multiple robots walking out of a crashed airplane.

2015 **Reverse Engineering of Higher Order Proofs (6 months)** *Deducteam, INRIA, Paris, FR*

During this internship, I developed a new kernel for a theorem prover with the output translated and validated by a proof checker.

Professional Skills

Data Analysis/Management: linked data, knowledge management, large scale knowledge graph, knowledge engineering, data refinement/validation, etc.

Artificial Intelligence: machine learning, robotics, multi-agent systems, simulation, chatbot, etc.

Web/Software Engineering: agile development, modelling, visualisation, project planning, etc.

Technical Skills

Data Processing: pandas, numpy, networkx, scipy, tarjan, pymetis, Google Sheets, etc.

Data Query: SPARQL, PyHDT, rdflib, etc.

Data Formats: CSV, RDF, HDT, Turtle, N-triple, OWL, XML, JSON, WebGraph, FASTA, BPSEQ, OpenTheory, Dedukti, etc.

Data Publishing: TriplyDB, Zenodo, etc.

Data visualisation and interaction: Matplotlib, CSS/JS, Blender, Google Map, etc.

Platforms and Tools: TensorFlow, Django, Heroku, etc.

Programming Languages: Python, OCaml, C++, Java, L^AT_EX, etc.

Editors/Version Control: Atom, Protégé, Github, Jupyter Notebook, etc.

Robotics/Agents/IoT: HPP, ENKI, Raspberry Pi, Leap Motion, etc.

Datasets

Linked Open Data/Knowledge Graphs: LOD-a-lot, DBpedia, sameas.cc, SNOMED, etc.

Other datasets: OpenTheory (proofs in higher-order logic), PseudoBase++ Database (RNA secondary structure prediction), etc.

Academic Experience

Research Visits

Jan 2017 A funded two-week visit to the Bar-Ilan University (invited by Prof. Sarit Kraus) *Ramat Gan, IL*

Teaching

2021 **A.I. in Health (first year MSc A.I.)** *VU&WUST*

2020 **Intelligent Systems (first year BSc A.I.)** *VU*

2017-2020 **Knowledge Representation (first year MSc A.I.)** *VU*

Supervision

2018 **Lucas de Vries (MSc)** *VU-UvA*

2018 **Tico van der Laan and Stein de Bever (BSc)** *VU*

Selected Recent Publications (see [Google Scholar](#))

2021 **Refining transitive and pseudo-transitive relations at web scale** *ESWC*

2020 **Submassive : Resolving subclass cycles in very large knowledge graphs** *LASCAR*

2019 **Evolving efficient deep neural networks for real-time object recognition** *IEEE-SSC*

2019 **A multimodal chatbot system for enhancing social skills training for security guards** *HCI*

Grants and Scholarships

2017 NWO TOP grant (for doctoral studies), MaestroGraph project, VU Amsterdam.

2014-2015 INRIA-MPRI Scholarship (<1%), INRIA and ENS Cachan, €12,000.

Extracurricular Activities and Interests

2013-2014 Manchester Ultimate Programming (student society), president, Manchester, UK

Feb 2021 Exhibition: 20 Hands in 2020. This exhibition consists of 12 painting and sketches of in total 20 hands. Due to Covid restrictions, it was converted to an online exhibition. We received 180 visitors from all over the world in the first two days.

Aug 2021 Exhibition: Golden. The exhibition will be at the CHAxART Gallery. It consists of 7 paintings and drawings inspired by some Dutch master pieces with a focus on the Dutch Golden Age. In addition, the exhibition also includes 5 illustrations.

Multilingual Proficiency

Chinese Native

English Professional working proficiency

French A2

Dutch Basic (A1 → A2)

References

Name

Contact

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- Dr. Peter Bloem
Vrije Universiteit Amsterdam

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