

MAHDI SELLAMI

IT Researcher | Machine Learning & Privacy Specialist

CONTACT INFORMATION

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LinkedIn: <https://www.linkedin.com/in/mahdi-sellami-621710112/>

GitHub: <https://github.com/Mahdisellami>

Research Profile: <https://www.fortiss.org/en/results/scientific-publications/author/mahdi-sellami>

Date of Birth: June 23, 1995

Nationality: German-Tunisian

OBJECTIVE

Experienced Researcher in AI, Data Privacy, and Knowledge Management with a passion for AI-based prediction solutions and privacy-preserving machine learning. Seeking to leverage research expertise in applied consulting and software development roles.

PROFESSIONAL EXPERIENCE

RESEARCHER

fortiss GmbH | Munich, Germany

September 2019 - Present

- **Sept 2019 - Apr 2022:** Part-time (60%)
- **Apr 2022 - Present:** Full-time

Key Responsibilities: - Project management and technical specification for research projects - Writing and publishing scientific papers in top-tier conferences - Implementing and deploying Proof-of-Concepts (PoCs) - Leading collaborative research initiatives with industry partners

Research Focus: - Federated Learning and distributed machine learning systems - Privacy-preserving technologies and data security - AI applications in public sector and government - Machine learning compliance and regulatory frameworks - Banking and investment sector AI solutions

Technologies: Python, TensorFlow, Keras, Docker, Kubernetes, Git, ReactJS, VueJS, MongoDB, GraphDB

Key Projects: - AFML (Accountable Federated Machine Learning): <https://www.fortiss.org/en/research/projects/detail/af>
- Collaboration with IBM Research on ML compliance frameworks - Government AI and citizen participation platforms

RESEARCH SCHOLAR

IBM Research Almaden | San Jose, California, USA

December 2022 - March 2023

Research visit at IBM Research during a collaborative project on Federated Learning and ML compliance.

Focus Areas: - Accountable and reproducible federated learning - ML FactSheets and documentation frameworks - Regulatory compliance in distributed AI systems

STUDENT ASSISTANT

fortiss GmbH | Munich, Germany

January 2018 - August 2019

Responsibilities: - Machine Learning model development - Natural Language Processing (NLP) applications - Chatbot development and deployment

Technologies: Python, NLP libraries, ML frameworks

WORKING STUDENT - SOFTWARE DEVELOPER

NTT Data Deutschland | Munich, Germany

April 2016 - December 2017

Responsibilities: - Software development and testing for enterprise applications - Backend development and API implementation - Test automation and continuous integration

Technologies: Java EE, Eclipse, Maven, PostgreSQL, Jenkins, JUnit, REST APIs

JUNIOR IT CONSULTANT (Internship)

TNG Technology Consulting GmbH | Munich, Germany

March 2016 - April 2016

Project: Internal project in Robotics and AI

Responsibilities: - Development of robotics control systems - Computer vision implementation - Virtual reality integration

Technologies: ROS (Robot Operating System), Python, C++, C#, Computer Vision, VR

EDUCATION

MASTER OF SCIENCE (M.SC.) - INFORMATICS

Technical University of Munich (TUM) | Munich, Germany

October 2018 - February 2022

Major: Machine Learning & Data Analytics

Final Grade: Very Good

Relevant Coursework: - Advanced Machine Learning - Deep Learning - Privacy-Preserving Data Analysis - Distributed Systems - Data Mining and Analytics

BACHELOR OF SCIENCE (B.SC.) - INFORMATICS

Technical University of Munich (TUM) | Munich, Germany

October 2014 - May 2018

Application Area: Economics & Business

Relevant Coursework: - Algorithms and Data Structures - Software Engineering - Database Systems - Business Information Systems

HIGH SCHOOL DEGREE (BACCALAURÉAT)

Lycée Pilote de Sfax | Sfax, Tunisia

September 2009 - June 2013

Attended a state-funded pioneer high school in Tunisia.

Major: Mathematics

HONORS & AWARDS

Deutschlandstipendium (Germany Scholarship)

Scholar Year 2016/2017

Sponsored by Microsoft - Awarded for academic excellence and social commitment

PUBLICATIONS

Peer-Reviewed Publications:

1. **BARACALDO, Nathalie; ANWAR, Ali; PURCELL, Mark; et al. (including SELLAMI, Mahdi)**
“Towards an accountable and reproducible federated learning: A FactSheets approach”
arXiv preprint arXiv:2202.12443, 2022.
2. **BALTA, Dian; SELLAMI, Mahdi; KUHN, Peter; et al.**
“Accountable federated machine learning in government: engineering and management insights”
Electronic Participation: 13th IFIP WG 8.5 International Conference, ePart 2021, Granada, Spain, September 7-9, 2021, Proceedings 13. Springer International Publishing, 2021. p. 125-138.
3. **BALTA, Dian; SELLAMI, Mahdi; KUHN, Peter; et al.**
“Insights from Natural Language Processing”
EGOV-CeDEM-ePart 2019, 2019, p. 241.
4. **BALTA, Dian; KUHN, Peter; SELLAMI, Mahdi; et al.**
“How to streamline AI application in government? A case study on citizen participation in Germany”
Electronic Government: 18th IFIP WG 8.5 International Conference, EGOV 2019, San Benedetto Del Tronto, Italy, September 2-4, 2019, Proceedings 18. Springer International Publishing, 2019. p. 233-247.

Full Publication List: <https://www.fortiss.org/en/results/scientific-publications/author/mahdi-sellami>

TECHNICAL SKILLS

Programming & Development

- **Languages:** Python, JavaScript, Java, C++, C#, HTML, CSS
- **Frameworks & Libraries:** TensorFlow, Keras, PyTorch, ReactJS, VueJS, NodeJS, ExpressJS
- **Tools:** Jupyter Notebook, Git, Maven, Eclipse

Machine Learning & AI

- Machine Learning & Deep Learning
- Federated Learning
- Natural Language Processing (NLP)
- Privacy-Preserving ML
- Computer Vision
- Chatbot Development

Data & Databases

- **Databases:** MongoDB, PostgreSQL, GraphDB
- **Technologies:** OWL, Knowledge Graphs
- **Skills:** Data Analysis, Data Mining, ETL

DevOps & Cloud

- **Containerization:** Docker, Docker-Compose, Kubernetes
- **Cloud Platforms:** AWS, Google Cloud Platform
- **CI/CD:** Git CI/CD, Jenkins
- **Operating Systems:** Linux Server Administration

Project Management & Collaboration

- GitLab (Issues, Wiki Pages, CI/CD)
- Azure DevOps
- Confluence
- Agile Methodologies

AI Tools

- Claude (Anthropic) - for complex problem-solving and code generation
- Claude Code - for agentic development tasks

CORE COMPETENCIES

Data Analysis - Advanced statistical analysis and data-driven decision making

Programming - Multi-language proficiency with focus on Python and JavaScript

Problem-Solving - Complex technical challenges and research questions

Critical Thinking - Analytical approach to research and development

Time Management - Effective project delivery and deadline management

Machine Learning - End-to-end ML pipeline development

Full-Stack Development - Frontend and backend application development

Research & Publications - Academic writing and conference presentations

Team Collaboration - International and cross-functional team experience

LANGUAGES

Language	Proficiency Level
Arabic	Native
French	Native
German	Advanced (C1)
English	Advanced (C1)
Spanish	Elementary (B1)
Portuguese	Beginner (A1) - Currently Learning

ADDITIONAL INFORMATION

Research Interests: - Federated Learning and Distributed AI - Privacy-Preserving Machine Learning - AI Governance and Compliance - Explainable AI (XAI) - AI in Public Sector

Professional Memberships: - Active contributor to open-source projects (GitHub: <https://github.com/Mahdisellami>)

Availability: Immediate or by arrangement

This CV was created with assistance from Claude (Anthropic) - February 2026