

TUAN A. TRAN

+49 (176) 288-22670 ◊ Heilbronn, Baden-Württemberg, Germany

tuantran@meta.com ◊ [LinkedIn profile](#) ◊ [Github page](#)

SUMMARY

I am an ML engineer and with 10+ years of experience in software engineering and applied AI research (Natural Language Processing - NLP, Knowledge Graph, Autonomous Driving).

EDUCATION

Leibniz University Hannover

Hannover, Germany

Doctor of Natural Sciences (Dr.rer.nat) — Magna cum laude

August 2018

- Topic: Natural Language Processing & Knowledge Graph

Saarland University, Max Planck Institute for Informatics

Saarbrücken, Germany

Master of Computer Science — Graduated with Distinction (Grade: 1.3)

May 2011

- International Max Planck Research School Master Fellowship
- Relevant Courses: Database, Artificial Intelligence, Software Engineering, Large-scale Graphs, Practical Security

Hanoi University of Science and Technology

Hanoi, Vietnam

Bachelor of Engineering — Graduated with Excellence (Grade: 8.9 / 10)

May 2008

- Excellent student research award
- Major: Computer Science (Minor: Information Systems)

High School for Gifted Students, Hanoi University of Science

Hanoi, Vietnam

High school Diploma — Graduated with Excellence (Grade: 54 / 60)

May 2003

- Member of National Mathematics Olympiad team

WORK EXPERIENCE

Senior Machine Learning Engineer

Feb 2023 - present

Meta Platforms

Stuttgart (remote), Germany

Senior Expert

Nov 2022 - Feb 2023

Robert Bosch GmbH — Mobility Solutions

Stuttgart, Germany

- Build an end-to-end ML prototype to win customer buy-in in field data quality management projects.
- Delivered 2 models for mainstream products, integrate with internal dashboard.

Technical Lead

Sep 2020 - Oct 2022

Robert Bosch GmbH — Global Services division

Stuttgart, Germany

- Lead engineering team to build a ML system that reduced processing time of customer requirements to **85%** using hybrid models (NLP, Near-Duplicate Detection, rule-based classifiers).
- Work with DevOps team to streamline models from in-house GPU cluster to AWS EKS for 3 customers.
- Support product owner and project leader in talk with stakeholders, help grow team (3 in 2019 to 11 in 2022).

Senior R&D Engineer

Jan 2020 - Oct 2022

Robert Bosch GmbH — Mobility Solutions

Abstatt, Germany

- Developed Minimal Viable Products with autonomous driving team for internal use cases:
 - Brake Analysis: Processed 100 TB measure data to allow visualization in in-house dashboard (QlikSense).
 - Road Sign Recognition: Processed public and internal data (28 countries), developed retrieval and augmentation service for an in-house labelling tool that led to **13%** model improvement.
- Contribute to publicly-funded project [KI-Wissen](#) (Work package 1.4 - Knowledge extraction).

- Collaborate with corporate research: 4 internal reports, 1 patent application, 5 peer-reviewed publications.

Interim Sub-project Leader, Product Owner

Robert Bosch GmbH — Mobility Solutions

Jan 2020 - August 2020

Abstatt, Stuttgart, Germany

- Led an internal incubation project, defined roadmap with cross-functional teams, successfully integrated to a corporate top-level project, adding 3 more headcounts for the department.

Development Engineer

Robert Bosch GmbH — Mobility Solutions

Sep 2017 - December 2019

Abstatt, Germany

- Developed ETL to process internal video data; built semantic search functions (ElasticSearch, Stardog)
- Developed AI model to classify brake quality from test bench data with 80% accuracy using gradient boosting.

Research Intern

IBM Research

Jun 2016 - Sep 2016

Dublin, Ireland

- Extracted decision elements from meeting transcripts (project [Debater](#))

Research Software Engineer

L3S Research Center

Aug 2011 - Aug 2017

Hannover, Germany

- Worked in 3 EU research projects ([Qualimaster](#), [ForgetIT](#), [GLOCAL](#))

Freelancer Software Engineer

SaltLux

Oct 2008 - Feb 2009

Seoul, Südkorea

Backend Software Developer

Viet Intelligences

Apr 2008 - Oct 2008

Hanoi, Vietnam

EXTRACURRICULAR ACTIVITIES

- 2021 Member of Bosch Developer Advocate Network - DAN (gave internal tech talks & tutorials)
- 2020 Participated in [nuScenes prediction challenge](#) (top 4 finalists)
- 2016 Presented project results in [CeBIT expo](#)
- 2016 External reviewer [WSDM 2016](#)
- 2013 External reviewer [RecSys 2013](#)

SKILLS

Languages	Python, Java, Go, Bash, SQL
Platforms	Linux, Hadoop, AWS, HPC
Automotive process	V-Model (ASPICE), Functional safety standards (IEC 61508, ISO 26262)
Soft Skills	Agile (Scrum, SAFe), leadership (SCARF, situational), project management

SELECTED PUBLICATIONS (in industry. See [Google Scholar](#) for publications in academia during PhD)

- 2022 **System and Method for Road Sign Ground Truth Construction with a Knowledge Graph and Machine Learning**, US Patent App. 17/004,133. (See [arXiv paper](#))
Ji-Eun Kim, Cory Henson, Kevin Huang, **Tuan Tran**, Wan-Yi Lin.
- 2021 **Feasible and Adaptive Multimodal Trajectory Prediction with Semantic Maneuver Fusion**, IEEE International Conference on Robotics and Automation (ICRA) ([link](#)).
Hendrik Berkemeyer, Riccardo Franceschini, **Tuan Tran**, Lin Che, Gordon Pipa.
- 2019 **Using Knowledge Graphs to Search an Enterprise Data Lake**, European Semantic Web Conference (ESWC) ([link](#)). Stefan Schmid, Cory Henson, **Tuan Tran**.
- 2018 **A Trio Neural Model for Dynamic Entity Relatedness Ranking**, The SIGNLL Conference on Computational Natural Language Learning (CoNLL) ([link](#)). Tu Ngoc Nguyen, **Tuan Tran**, Wolfgang Nejdl.

LANGUAGE PROFICIENCY

Vietnamese (*native*) English (*business fluent*) German (*good*)