

# CURRICULUM VITAE

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## Professional Experience

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- 04/2026 - present **Maikowski & Ninnemann**  
Patent Attorney in the fields of communications, video coding, electrical engineering, and IT  
Focus areas: Infringement, nullity, and patent prosecution proceedings  
Partners: Andreas Tanner, Dr. Gunnar Baumgärtel, Ralf Emig
- 10/2023 - 03/2026 **Bardehle Pagenberg**  
Patent Attorney and Trainee in the fields of communications, audio and video coding, and IT  
Focus areas: Infringement, nullity, and patent prosecution proceedings  
Supervising Partners: Tobias Kaufmann, Dr. Tilman Müller, Dr. Volkmar Henke
- 10/2022 - 09/2023 **Dörries Frank-Molnia & Pohlman (df-mp)**  
Patent Attorney Trainee in the fields of communications, video coding, and IT networks  
Focus areas: Infringement and nullity proceedings  
Supervising Partners: Dr. Dominik Ho, David Molnia
- 03/2019 - 05/2019 **Université de Rennes 1**  
Research stay at the Faculty of Mathematics (IRMAR)  
Collaboration with Dr. Pierre Loidreau, Prof. Dr. Julien Lavauzelle  
Research area: Attacks on IT security systems
- 11/2017 - 08/2022 **Technical University of Munich (TUM)**  
Research Associate at the Institute for Communications Engineering  
Supervisor: Prof. Dr. Antonia Wachter-Zeh  
Research area: Coding and cryptography
- 02/2017 - 10/2017 **NXP Semiconductors & Eindhoven University of Technology (TU/e)**  
Research Associate  
Supervisors: Prof. Dr. Frans Willems (TU/e), Dr. Francesco Laghezza (NXP)  
Research area: Embedding digital communication in automotive radar systems
- 03/2015 - 08/2015 **Rohde & Schwarz in Munich**  
Part-time Engineer – Baseband Hardware & Wireless Application Signal Generators  
Development and C++ implementation of automation and test routines
- 08/2013 - 10/2013 **Rosenberger Hochfrequenztechnik in Fridolfing**  
Intern in the Research & Development department  
Measurement of connector-cable combinations using spectrum analyzers
- 04/2013 - 07/2014 **Technical University of Munich (TUM)**  
Teaching Assistant for Control Systems 1 (Prof. Dr. Buss, summer semester 2014)  
Teaching Assistant for Audio and Image Processing (Prof. Dr. Rigoll, summer semester 2013)

## Education

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- 10/2022 - 12/2025 **Training as a Patent Attorney**  
Training in the fields of patents, trademarks, and designs  
Stages: Munich Regional Court I (Landgericht München I), German Patent and Trademark Office (DPMA), German Federal Patent Court (Bundespatentgericht)
- 10/2018 - 08/2022 **M.Sc. in Management, Grade: 1.4 (top 9 %)**  
Technical University of Munich (TUM)  
Focus on finance and capital markets  
Master's thesis: "Machine Learning in Global Markets: A Private Investor Perspective" in collaboration with Prof. Horlemann (University of St. Gallen)
- 11/2017 - 11/2021 **Doctor of Engineering (Dr.-Ing.), Distinction: magna cum laude**  
Institute for Communications Engineering, Technical University of Munich (TUM)  
Focus on post-quantum cryptography and applied coding theory  
Dissertation: "Post-Quantum Cryptography in the Hamming Metric, the Rank Metric, and the Sum-Rank Metric"

06/2014 - 12/2016	<b>M.Sc. in Electrical Engineering and Computer Engineering, Grade: 1.0 (top 3 %)</b> Technical University of Munich (TUM) Focus on communication systems, information theory, and digital signal processing Master's thesis: "Multidimensional Probabilistic Shaping for the Nonlinear Fiber Channel" in collaboration with Prof. Forchhammer (Technical University of Denmark)
08/2015 - 01/2016	<b>Master's Student in Computer Engineering and Electrical Engineering, Grade: 1.0</b> Technical University of Denmark (DTU) Focus on machine learning, pattern recognition, optimization, data fitting, and C++
05/2011 - 06/2014	<b>B.Sc. in Electrical Engineering and Information Technology, Grade: 1.5 (top 7 %)</b> Technical University of Munich (TUM) Focus on communication technology and digital signal processing Bachelor's thesis: "Quantization of Log-Likelihood Ratios in MIMO Systems"

## Awards

2016/2017	<b>Deutschlandstipendium at TUM</b> Merit-based scholarship of the Technical University of Munich Sponsor: Rheinmetall
2016	<b>FIT weltweit Stipendium</b> Merit-based scholarship for international research stays Sponsor: German Academic Exchange Service (DAAD)
2015/2016	<b>Deutschlandstipendium at TUM</b> Merit-based scholarship of the Technical University of Munich Sponsor: MAN Truck & Bus
2014/2015	<b>Deutschlandstipendium at TUM</b> Merit-based scholarship of the Technical University of Munich Sponsor: Wipro Technologies

## Additional Skills and Interests

Linux Server Programming	Virtualization management, self-hosted VPN, DNS resolution, cloud storage, etc.
Language Skills	C/C++, Git, LaTeX, Matlab, Python, SageMath, VHDL
Leisure	German (native), English (fluent, written and spoken)
Certificates	Tennis (incl. youth coaching and courses for primary school children) and cooking Assistant Coach Certification from the Bavarian Tennis Association Certificate in Higher Education Teaching of the Bavarian Universities

## Patent Law Experience

To date, I have applied my expertise in more than 15 inter partes proceedings before the Unified Patent Court (UPC), the ordinary courts, and the German Federal Patent Court, in the fields of audio and video coding as well as telecommunications. In addition, I have drafted more than 100 responses to office actions of the European Patent Office (EPO) in the field of telecommunications, particularly in connection with 5G, and have prepared more than ten patent applications, including in the field of artificial intelligence.

## Peer-Reviewed Publications

I have collaborated with more than 20 engineers, mathematicians, and computer scientists from over 10 different countries, working in industry, academia, and ministries of defense. These collaborations have resulted in both journal and conference articles as well as patents in the fields of IT security, digital communications, applied coding theory, and radar, which have been cited in more than 500 scientific works. The order of authors in my publications is not uniform; in most cases it is alphabetical, depending on the respective co-authors.