



# Patrick Michl

Senior Data Scientist | AI Engineer | Mathematician



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## PERSONAL

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**Legal** POB/Date: 93309 Kelheim, DE at 05/19/1982  
 Nationality: German  
 Marital status: Married

**Online** Professional profile: [LinkedIn](#)  
 Research profile: [ORCID](#) | [Heidelberg University](#)  
 Software development: [GitHub](#) | [PyPI](#)  
 Blog/Talks: [Frootlab](#) | [SlideShare](#)  
 Certificates: [Credly](#) | [Coursera](#) | [Scrum.org](#)



## ABOUT

*I spent the most part of my professional and educational lifetime by shaping my experience and expertise in AI, machine learning, software engineering and network technologies. During this process I gained domain specific insights into different industries comprising manufacturing (engineering, shop floor and office), finance (office, sales), pharma (research) as well as the public sector. I identify myself as a passionate mathematician, obsessive software craftsman and convinced AI enthusiast.*



## EDUCATION

### Ruprecht-Karls-Universität

Heidelberg, 2006–2018

Mathematics Diploma: Grade 1.4 / GPA 3.6, with specialization in statistics, machine learning and differential geometry. Subsidiary subjects: Theoretical physics, applied computer science and systems biology. Fundamental [research](#) in machine learning and systems biology with honored [thesis](#) *Principal Manifold based Correlation Analysis*

### Ostbayerische Technische Hochschule

Regensburg, 2003–2006

Applied mathematics with specialization in graph theory, optimization and operations-research. Subsidiary subjects: Relational database design, software engineering and economics. Internship semester: Development and implementation of a graph-based optimization [algorithm](#) for automated multi-service machine translation



## LANGUAGES

German: Native | English: Fluent | French: Basic | Irish: Basic

## EXPERIENCE



### amprella DIGITAL GmbH, Senior Data Scientist

Mannheim, 05/2021–01/2022

Process mining-, enterprise data modeling- and digitalization projects from planning and conception to project coordination (*agile*), product management, architecture design (*microservices*) and dev & operations (*cloud, on-premises*)

### reboot GmbH, Data Scientist

Mannheim, 02/2020–04/2021

AI driven shop floor- and quality automation, business analytics, DB dev- and digitalization projects, predictive analytics and -maintenance, RPA

### Freelance Data Scientist

Heidelberg, 03/2018–01/2020

Consulting in enterprise data warehousing and -data modeling, data analysis- and digitalization projects in the Rhine-Neckar metropolitan area

### Frootlab Smart Analytics, Founder

Heidelberg, 05/2016–present

Entrepreneurship, product management and architecture design for hierarchical cloud based [data analysis framework](#) and infrastructure

### DKFZ, Research Assistant

Heidelberg, 12/2012–01/2014

Research in deep-learning based gene expression and -regulation analysis applied to breast cancer and GBM at *network modeling research group*

### Ruprecht-Karls-Universität

06/2008–02/2014, Institute for Mathematics, Systemadministrator: Unix- and DB administration, network engineering, DB reliability engineering, helpdesk

05/2012–07/2012, Institute for Molecular Biotechnology, Student Research Assistant: Deep-learning-based gene expression data analysis

10/2008–03/2009, Institute for Computer Sciences, Lecture Assistant: Tutorship in applied computer science at *software engineering research group*

### Eckert Schulen, Freelance Technical Writer

Regenstauf, 10/2011–09/2012

Authoring of the textbook: *Netzwerktechnik*, NET(TE)1, ArtNr. 02303, for the vocational education of IT- and electrical engineers in Germany

## SKILLS



Machine Learning | Statistics | Statistical Dev (*Python, SAS, R, Matlab*) | AI Business Analytics | Data Visualization and Presentation | Reporting Product Management | IT-Project Management | Agile Coaching (*Scrum*) Predictive Analytics | Process Mining | Network Engineering & -Security DB (*SQL, noSQL*) | DevOps (*Git, Docker, Kubernetes, OpenShift, CI/CD*) Web Dev (*TypeScript, Angular, Go, PHP*) | Hardware Dev (*C/C++, C++*)



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