



Patrick Michl

Senior Data Scientist | AI Engineer | Mathematician



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 development and network technologies. During this process I gained domain specific insights into different industries comprising manufacturing (engineering, shop floor and office), finance (office, sales) and pharma (research). I identify myself as a passionate mathematician, obsessive software developer 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 sciences and systems biology. Fundamental [research](#) in machine learning and systems biology with honored [diploma 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 management, software development and economics. Internship semester: Development and implementation of the graph-based optimization [algorithm and software](#) *PolyTran* for automated 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*), architecture design (*microservice*), development and operation (*cloud, on-premises*)

reboot GmbH, Data Scientist Mannheim, 03/2020–04/2021

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

Freelance Data Scientist Heidelberg, 03/2018–02/2020

Consulting in enterprise data warehousing, (*hybrid-, multi-*) cloud, data analysis and digitalization projects in the Rhine-Neckar metropolitan area

Frootlab Smart Analytics, Founder Heidelberg, 05/2016–present

Founder, software architect and consultant for the next generation low code [software framework](#) *Vivid Code* for automated collaborative data analysis

DKFZ, Research Assistant Heidelberg, 12/2012–01/2014

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

Ruprecht-Karls-Universität

06/2008–02/2014, Institute for Mathematics, Systemadministrator: Unix administration, DB administration, Network services and security

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

10/2008–03/2009, Institute for Computer Sciences, Lecture Assistant: Applied CS and software development 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 | AI | Data Visualization and Presentation
Statistical Programming (*Python, SAS, R, Matlab*) | Business Analytics
Product Management | IT-Project Management (*Scrum*) | Agile Coaching
Predictive Analytics | Process Mining | Network Engineering & -Security
DB Dev (*SQL, noSQL, UML*) | Cloud Dev (*Docker, Kubernetes, Azure, Spark*)
Web Dev (*TypeScript, Angular, PHP, REST*) | Hardware Dev (*C/C++, CAPL*)