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| Patrick Michl  Senior Data Scientist | AI Engineer | Mathematician |

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| |  |  | | --- | --- | | **Personal** | | | **Contact** | Floringasse 5, 69117 Heidelberg, DE Phone: +49 177 85 44 151 EMail: [patrick.michl@gmail.com](mailto:patrick.michl@gmail.com) | | **Legal** | POB/Date-: 93309 Kelheim, DE at 05/19/1982 Nationality: German Marital status: Married | | **Online** | Professional profile: [LinkedIn](https://www.linkedin.com/in/patrick-michl/) Research profile: [ORCid](https://orcid.org/0000-0002-6398-0654) | [Heidelberg University](https://www.mathi.uni-heidelberg.de/people/personeninfo.html?uid=pmichl) Software development: [GitHub](https://github.com/fishroot) | [PyPI](https://pypi.org/user/fishroot) Blog/Talks: [Frootlab](https://www.frootlab.org/authors/patrick.html) | [SlideShare](https://de.slideshare.net/PatrickMichl1/presentations) Certificates: [Credly](https://www.credly.com/users/patrick-michl) | [Coursera](https://www.coursera.org/user/603b3c2b92a6b2a3b8aa83668b9018c6) | [Scrum.org](https://www.scrum.org/user/762608) | | **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-University](https://www.uni-heidelberg.de/en) Heidelberg, 2006 - 2018  Mathematics Diploma: Grade 1.4 / GPA 3.6, with specialization in sta-tistics, machine learning and differential geometry. Subsidiary subjects: Theoretical physics, applied computer sciences and systems biology. Fundamental [research](https://arxiv.org/search/math?searchtype=author&query=Michl%2C+P) in machine learning and systems biology with honored [diploma thesis](https://github.com/fishroot/resume/blob/master/papers/201708%20-%20Diploma%20Thesis%20-%20Principal%20Manifold%20based%20Correlation%20Analysis.pdf): **“***Principal Manifold based Correlation Analysis*”  [Ostbayerische Technische Hochschule](https://www.oth-regensburg.de/en.html) Regensburg, 2003 - 2006  Applied mathematics with specialization in graph theory, optimization and operations-research. Subsidiary subjects: Relational database manage-ment, software development and economics. Internship semester: Development and implementation of the graph-based optimization [algorithm and software](https://github.com/fishroot/PolyTran) *”PolyTran”* for automated machine translation. | | | **Languages** | | | **German**: Native | **English**: Fluent | **French**: Basic | **Irish**: Basic | | | |  | | --- | | **Experience** | | [amprela GmbH](https://amprela.de/), Senior Data ScientistMannheim, 05/2021 - present  Process mining, enterprise data modeling and digitalization projects from inception to agile project management, implementation and operation  [reboot GmbH](https://www.reboot.de/), Data ScientistMannheim, 03/2020 - 04/2021  AI driven shop floor automation, business analytics, database development and digitalization projects comprising predictive analytics and RPA  [Freelance Data Scientist](https://linkedin.com/company/freelancer-patrick-michl) 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](https://www.frootlab.org/), Founder Heidelberg, 05/2016 - present  Founder, software architect and consultant for the next generation low code [software framework](https://www.frootlab.org/projects/vivid) *”Vivid Code”* for automated collaborative computing  [Ruprecht-Karls-University](https://www.uni-heidelberg.de/en)  06/2008 - 02/2014, [Institute for Mathematics](https://www.mathi.uni-heidelberg.de/~pmichl), Systemadministrator: Unix administration, DB administration, network configuration and security  05/2012 - 07/2012, [Institute for Molecular Biotechnology](https://www.ipmb.uni-heidelberg.de/index_en.html), Research Assistant: Deep-learning-based gene expression analysis  10/2008 - 03/2009, [Institute for Computer Sciences](https://www.ifi.uni-heidelberg.de/), Lecture Assistant: Applied CS and programming at software engineering research group  [DKFZ](https://www.dkfz.de/), 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  [Eckert Schulen](https://www.eckert-schulen.de), 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 Predictive Maintenance | Process Mining | Network Technology / Security DB Dev (SQL, noSQL) | Cloud Dev (Docker, Kubernetes, Azure, Spark) Web Dev (TypeScript, Angular, PHP; REST) | Administration (Debian) IT Project Management (Scrum) | |