

Tomas Fiers

Software & Data Engineer · Machine learning & signal processing · PhD, burgerlijk ingenieur

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Availability: freelance, 3–4 days/week, hybrid (Ghent / Flanders) · Eenmanszaak, BTW BE1020.741.688

Languages: Dutch (native) · French (bilingual) · English (fluent)

Profile

Data scientist and full-stack developer who builds both the analysis and the product around it. Seven years of data science and scientific computing in research (machine learning, statistical modelling, signal processing in Python and Julia), plus production full-stack work at DataCamp and on a work-order app with ERP integrations (TypeScript, React Native, NestJS, Kubernetes). Burgerlijk ingenieur (signal processing) with a PhD. I care about correctness, clear communication, and good user interfaces, and like taking a problem from vague idea to a working, tested tool.

Core skills

Data science & ML	Python (NumPy, SciPy, pandas, scikit-learn, PyTorch/TensorFlow, matplotlib, Jupyter), Julia, R, SQL, MATLAB, C · Bayesian statistics, neural networks and deep learning, data visualisation
Signal processing	Time series analysis, filter design, Fourier/wavelet analysis, real-time detection, simulation
Software & web	TypeScript/JavaScript, React (Native), Angular, Node.js/NestJS, Java, PHP, Kotlin (Android), HTML5/CSS · RESTful APIs, OAuth, webhooks, microservices
Data & infra	PostgreSQL/Prisma, Redis, Airflow, Docker, Kubernetes, GitHub Actions CI/CD, Sentry, HPC
Practice	Git, Linux, testing (pytest, Jest), functional analysis, UX research & design, customer contact
AI-assisted dev	Spec-driven coding with agents (Claude Code, GitHub Copilot), and orchestrating multiple agents

Experience

Freelance Software & Data Engineer — Ghent	Mar 2025 – present
- Softwreshaker (NL), 2025 – 2026: full-stack developer on Workshaker, a work-order app for technicians, used by 400+ Dutch companies. - Shipped features from spec to production; owned deploys and monitoring; made the ERP data sync up to 4× faster. - Built a WooCommerce (WordPress) → Robaws ERP integration, live at several customer webshops. - Side project: <u>Mic Atlas</u>, a microphone-comparison web app.	
Postdoctoral Researcher, Neuroinformatics — Ghent University	Apr 2024 – Dec 2024
- Bayesian inverse-model estimation on large, heterogeneous brain-imaging datasets (many scan modalities). - Built Python data pipelines and analyses; international collaboration in the European EBRAINS project.	
Doctoral Researcher, Computational Neuroscience — University of Nottingham, UK	Feb 2020 – Jan 2024
- Statistical and machine-learning methods to infer neural connectivity from voltage-imaging data (Python, Julia). - Built and performance-optimised a spiking neural network simulation library in Julia.	
Research Engineer, Signal Processing — Neuro-Electronics Research Flanders (imec, VIB)	Apr 2019 – Jul 2019
Real-time detection of brain signals with spatiotemporal filtering and recurrent neural networks.	
Internships	2016 – 2017
- Software engineering, DataCamp (2016): production microservices and data pipeline (Node.js, Angular, PostgreSQL). - Data science, Byteflies (2017): analysed motion-sensor data for a medical wearable. - Business analysis, Fluves (2017): business plan for an offshore-wind joint venture.	

Education

PhD, Computational Neuroscience — University of Nottingham, UK	2020 – 2024
MSc Biomedical Engineering (burgerlijk ingenieur), signal processing — KU Leuven	2016 – 2019
BSc Engineering, Computer Science & Electrical Engineering — KU Leuven	2012 – 2017

Currently preparing for the 'Microsoft Certified: Azure AI App & Agent Developer (AI-103)' exam.