

# NICOLAS FORSTNER

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BASED IN: London

## EDUCATION

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2018-2022	UNIVERSITY OF YORK (RUSSEL GROUP) <i>MEng (Hons) Computer Science with Artificial Intelligence</i> <ul style="list-style-type: none"><li>• Recipient of the IET Prize for the most outstanding student on an IET accredited course.</li><li>• First class honors in all four years of the degree. A complete academic transcript is available on <a href="http://nforstner.com/transcript.pdf">nforstner.com/transcript.pdf</a>.</li><li>• Third year thesis on object tracking using conventional video and optical flow.</li></ul>
	SCHOOL 2017 <i>German (Bavarian) Abitur with a grade average of 1.6 (1 is best, 6 is worst)</i>

## WORK EXPERIENCE

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JUNE & JULY 2022	UNIVERSITY OF YORK <i>Research support assistant - Telemedicine with AI for COVID-19 patients in Indonesia</i> <ul style="list-style-type: none"><li>• Analysed and consolidated the team's research towards using AI to diagnose COVID-19 infections to prepare them for publication in journals such as <a href="https://doi.org/10.1371/journal.plosone.0238888">PLOS</a>.</li><li>• Developed integrations for AI models such that they could be used internally.</li></ul>
JULY & AUGUST 2020	ATOS <i>Intern - Consulting for data science and artificial intelligence</i> <ul style="list-style-type: none"><li>• Detection of humans through walls based on radio signals as part of a project for the German military (i.e. the BWI).</li><li>• I was tasked with developing a cross-modal teacher-student model and a complex data pipeline involving both traditional statistical methods and modern machine learning techniques.</li><li>• As part of our SCRUM cycle, I was regularly chosen to present our team's work directly to the customer and to manage further communication.</li></ul>
SEPTEMBER 2019	ATOS <i>Intern - Consulting for data science and artificial intelligence</i> <ul style="list-style-type: none"><li>• Development of software that uses machine learning to improve the efficiency of a production line for electrical parts in a Siemens factory.</li><li>• By making heavy use of data preprocessing and hyper-parameter optimization, my approach was able to beat all alternatives and was chosen to be deployed into production.</li></ul>
AUGUST & SEPTEMBER 2018	PADBERG & PARTNERS <i>Internship - Web development and task automation</i> <ul style="list-style-type: none"><li>• Contributions to the open-source marketing platform <i>Mautics</i> and development of scripts to automate migrations from proprietary software to open-source alternatives.</li></ul>

## SKILLS & CHARACTER

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None of the lists below are exhaustive.

- GENERAL: Extremely passionate about AI, self-sufficient style of working, knowledgeable in system design and software best practices, good communicator and team player
- MACHINE LEARNING: Diffusion models, Generative models, Computer vision, compute clusters, architecture search  
Jax, Haiku, Optax, Chex, PyTorch, OpenCV, Numpy
- LANGUAGES: Python, Rust, JavaScript, C
- OTHER: Linux, Git, GitHub, Docker, Slurm, GCP, AWS, LaTeX, Vim

## PROJECTS

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- KIGO: Diffusion model with a focus on clean code and configurability.
- TIMBER: Programming language with C-like syntax.

## LANGUAGES

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- ENGLISH: Business level
- GERMAN: Native

## OTHER INTERESTS

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Dev-Ops, continuous integration, game theory, evolutionary algorithms, system design, 3D animation, ultra-marathons and powerlifting.