

Alex Wendland

✉ a.p.wendland@gmail.com | 🌐 AlexWendland | 🌐 awendland.co.uk

Experience

Software Engineer	Man Group	07/2023 - Present
<ul style="list-style-type: none">Enabled annual database cost savings of £1M by migrating to a horizontally scaled Apache Arrow Flight server handling 1 Gi/second.Boosted fund chargeback by £80K/year by implementing Snowflake cost monitoring.Led a multi-team initiative to integrate LLM-powered code reviews in Bitbucket.Upgraded Python version for 500+ ETL pipelines with zero production downtime.Enhanced developer experience for 80+ active users with tools like mypy, pre-commit, Ruff, and Typos.		
Head of Data	CC Data	09/2021 - 06/2023
<ul style="list-style-type: none">Reduced Azure cloud storage costs by £60K/year (50%) through tiering policies, data format optimization, and retention strategies.Secured clients worth £60,000/year by calculating historical and daily order book metrics on over 100TB of data using NumPy, Docker, and Azure Blob Storage.Addressed customer reliability complaints by migrating data deliveries to use Kubernetes with monitor in Loki/Grafana and drove adoptions of Kubernetes in larger Data team (15 people).Expanded product range by researching, prototyping, and developing a blockchain data product to store, analyze, and standardize on-chain data.		
Science and Engineering Leadership Scheme	UK Government	10/2020 - 09/2021
<ul style="list-style-type: none">Managed high-profile scientific advice to the government in the Advisory Council for the Misuse of Drugs writing two 40+ page reports (e.g. Advice on consumer cannabidiol and Barriers to research).Facilitated social connection of remote civil servants using a JavaScript application backed by Google Sheets that scaled to four different organisations each with up to 600 users (still used as of 2024).		
Researcher and lecturer	University of Warwick	09/2015 - 09/2020
<ul style="list-style-type: none">Won multiple academic awards building a strong research portfolio by publishing in leading journals such as Advances in Mathematics, Annals of Applied Probability and the Journal of Graph Theory.Worked with Centre for Science and Policy (NLP), Heathrow airport (logistics modeling) and Defence Science and Technology Laboratory (AI safety).Award-winning teacher with experience in all levels and formats, from lecturing master's level courses to providing one-on-one support for underprivileged A-Level students.		

Education

Masters in Computer Science	4.0 GPA (current average)	2023/09 - Present
Georgia Institute of Technology, Atlanta, USA		
PhD in Mathematics	Generalisations of Cayley graphs and groups	09/2015 - 03/2020
University of Warwick, Coventry, UK		
Masters in Mathematics	1st Class Honors (91% average)	09/2011 - 07/2015
University of Warwick, Coventry, UK		

Skills

Programming Languages: Python, SQL, JavaScript, C, LaTeX, Nix, Lua.

Tools and Frameworks: Pandas, Numpy, SQLAlchemy, FastAPI, Pydantic, Apache Arrow, Kubernetes, Docker, Airflow, Snowflake, Azure Cloud, Dataiku, NLTK, ArcticDB, MongoDB, Grafana, Prometheus, OpenTelemetry, Sentry.

Collaboration and productivity: JIRA, Bitbucket, Github, Confluence, Obsidian, Neovim, NixOS.