

Aidan Gallagher

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Education

UNIVERSITY OF OXFORD, MMATHPHIL IN MATHEMATICS AND PHILOSOPHY 2018 – 2022
1st class degree (5th in cohort). Recipient of 2 College prizes for academic performance

KING'S COLLEGE SCHOOL WIMBLEDON 2008 – 2018
IB Diploma (44/45). Recipient of 6 School prizes and 2 Headmaster's medals

Experience

MACHINE LEARNING ENGINEER, FLETCHER'S GROUP *February 2024 – Present*
Working alongside a growing data science team to facilitate productionisation of their models, with a focus on migrating to modern industry-standard MLOps practices

BACKEND ENGINEER, MOTE TECHNOLOGIES *June 2022 – January 2024*

Technologies: Python, AWS, DynamoDB, Flask, Pytest, Pydantic, Redis, Typesense, OpenAI, CircleCI
Worked on a small team of 3 to improve and maintain Mote's backend, for both its voice-recording product (mote.com), and its AI quiz product (conker.ai)

- Owned and led a project which improved Conker's maths offering. As project lead, managed a team of 2 across 10 weeks to build the backend for a robust LLM-powered quiz generator, which supports 9 question types. Over 3500 maths quizzes have been generated by users so far
- Initiated and delivered a self-led project to speed-up tests and broaden coverage across the codebase, which resulted in an overall average improvement of 10% for test execution times, achieved via reduction of unnecessary endpoint tests, replacing them with more appropriate unit tests, increased use of fixtures, and removing duplicate or unnecessary legacy tests. Expanded use of Pytest fixtures also reduced pollution of the dev database
- Reduced errors to 0 for our CSV-upload experience by migrating the Flask endpoint to be asynchronous, using a Redis cache to track progress
- Had ownership over the technical side of Mote's customer support. Built an automated Slack bot to notify members of the Customer Success team of relevant new tickets. Regularly interacted with clients to solve individual issues, ensure positive user experience, and to fix or escalate bugs raised

FOUNDING ENGINEER, ENERGY NINJA *2023 – Present*
Side-project developed in a team of 3 which uses the wealth of energy data and new inverter technologies available to inform users' consumer decisions and build automated VPP solutions for deployment across the grid

- Designed and built the 'Smart Bills' tool, which uses the Requests library and Pydantic to pull and parse a given user's historic usage data, and minimise cost across a selection of different tariffs. Currently, the tool uses Memcached to store geo-specific tariff data from Octopus Energy, with scope to expand this to more energy providers

SOFTWARE ENGINEERING INTERN, MOTE TECHNOLOGIES *Summer 2021, 10 weeks*

- Collaborated with a small team to create and maintain a PostgreSQL database importing and organising relational and non-relational data from multiple sources, used by Mote's Customer Success team to query customer data

Hobbies

- Blogging about coding and music at agallagher.net, a self-hosted website built from scratch (stack: Amazon Lightsail, Nginx, Hugo, LetsEncrypt, Amazon Route53)
- Amateur interest in Haskell and functional programming; Vim and L^AT_EX enthusiast
- President of Wadham College Boat Club 2020–2022. Men's captain of Wadham College Boat Club 2019–2020. Keen amateur rower, runner, cyclist, and climber
- Proficiency in French (Intermediate, GCSE A*) and Italian (Basic/Intermediate, GCSE A*)