Efe Katircioglu

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EDUCATION

King's College London   **London, UK**
Computer Science BSc (Hons) | Predicted First-Class Honours   *Sep 2023 – Jun 2027*
- **Relevant Modules:** *Elementary Logic: 75%, Database Systems: 72%*
- **Current Modules:** *Introduction to AI, Robotics, Programming Language Design, Operating Systems & Concurrency*

WORK & RELEVANT EXPERIENCE

King's Labs   **London, UK**
Academy Software Engineer   *Feb 2025 – Apr 2025*
- Architected and deployed a full-stack Next.js application, by integrating dynamic client-side rendering with optimized server-side components and implementing a secure authentication layer using NextAuth.js with Google OAuth.
- Developed a suite of RESTful API endpoints for CRUD operations on user-specific data models, hosted on a serverless Neon PostgreSQL instance to enforce strict multi-tenancy and data isolation. Deployed on Vercel for real-time user traffic.

PROJECTS

Vibe Generator   **London, UK**
Founder & Software Engineer   *Jun 2025 – Sep 2025*
- Orchestrated an end-to-end user authentication flow leveraging the Spotify OAuth 2.0 framework, implementing stateless session management using JSON Web Tokens, and securing sensitive tokens using encryption.
- Engineered a high-throughput data aggregation pipeline in Node.js, concurrently ingesting data from over 6+ external music APIs. Optimized ingestion logic by implementing parallel asynchronous requests, boosting data retrieval performance by 23x.
- Developed a dynamic, responsive frontend using a component-based architecture in Next.js and React that decreased the rendering time by 30%. Deployed the application on DigitalOcean Cloud Droplet, utilizing PM2 as a process manager.
- Implemented advanced performance optimizations, including a multi-layer caching system and intelligent request batching, to reduce average API latency by 60%, decrease external API calls by 80%, and boost server capacity while minimizing costs.

Air Pollution Dashboard   **London, UK**
Software Project Leader   *Feb 2025 – Jun 2025*
- Directed a cross-functional team of four in the end-to-end design, development, and deployment of a JavaFX application to visualize complex environmental datasets, comprising over 5 million environmental records from 2018-2023.
- Engineered and optimized the data ingestion and cleaning pipeline, which reduced the processing time for the entire dataset by 75% and cut initial application load time by 50%, significantly enhancing overall performance and user experience.

CERTIFICATIONS & WORKSHOPS

Web Development Bootcamp – Udemy   *Nov 2024 – Jun 2025*
- Completed a comprehensive Full-stack Web Developer certification covering the MERN stack (MongoDB, Express.js, React, Node.js). Gained hands-on proficiency in core technologies including HTML, CSS, JavaScript, Node.js, React, and PostgreSQL.

Amazon   **London, UK**
Office Visit & AI/ML Immersion Day   *Oct 2024*
- Engaged in technical workshops during Amazon immersion day, exploring the end-to-end machine learning lifecycle on AWS, from data ingestion and model training to deployment.

Microsoft   **London, UK**
Reactor Insight Day   *Oct 2024*
- Attended a technical insight day focusing on Microsoft's engineering culture and exploring Azure Cloud Services.

TECHNICAL SKILLS

- **Programming Languages:** JavaScript, TypeScript, Java, Python, C++, Rust, SQL, HTML, CSS
- **Frameworks & Libraries:** Next.js, React, Node.js, Express.js, Django
- **Other Tools:** DigitalOcean, Vercel, PostgreSQL, Neon, Git, GitHub