Methran Gunasekaran

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Full-stack Software Engineer with **2+ years** of experience building scalable and secure web applications. Built core features for Document360, a SaaS platform used by **millions** worldwide, including customers like **NHS**, **Microsoft**, and **Pfizer**. Proficient in **.NET (C#)** and **Angular**, with expertise in **SQL Server** and **MongoDB**. **Eligible to work in the UK without visa sponsorship.**

WORK EXPERIENCE

Kovai.co   **May 2022 – May 2024**
Software Engineer – Document360   Coimbatore, India

- Built and enhanced core features of Document360 (Feature-rich Knowledge Base), focusing on user management, access control and authentication using .NET (C#) and Angular.
- Upgraded authentication from Identity Server 4 to Duende Identity Server 7, **improving performance by 30%** and enabling advanced SSO workflows (including IdP-Initiated SAML).
- Designed scalable solutions, including runtime authentication providers (**saving ~£20K/year**) and background jobs to purge redundant data (**~20% storage reduction**).
- Improved security and performance by implementing JWT authentication, caching strategies (in-memory + Redis), and optimizing middleware (~**28% faster API response**).
- Enhanced infrastructure by **blocking bot logins** with Google reCAPTCHA and mitigating DDoS risks via Cloudflare reverse proxy.
- Delivered **zero-downtime production** deployments via Azure CI/CD with Blue-Green strategy.

PROJECTS

Verbatim (Touch-Typing Learning Platform)
Stack - .NET 9 Web API, Angular, MongoDB, Google Gemini 2.5 Pro, RapidFuzz, SignalR, Google SSO

- Designed platform to **improve typing** performance by strengthening muscle memory through practice.
- Incorporated Adaptive Typing Session, where users practice problematic word patterns using **Fuzzy Search** logic.
- Implemented **real-time sessions** where users can compete with friends via **SignalR** and designed intuitive leaderboard for tracking relevant WPM, accuracy, and points.
- Integrated **GenAI** to provide personalized feedback and suggestions on weak areas and error trends.
- Deployed using Vercel (Client), Railway (Server & FastAPI Microservice) and Mongo Atlas (MongoDB).

Space360 (Room Reservation Platform)
Stack - .NET 6 WEB API, Angular, SQL Server, Azure Logic Apps, Azure CI/CD, MailKit

- Built a platform for **office room reservation** with role-based access (Admin/User), JWT authentication, route guards, and email **OTP** verification.
- Visualized **real-time room availability** and conflict detection on a resource timeline-calendar (FullCalendar) via **Azure Logic Apps**.
- Deployed on Azure (App Service, SQL, Blob Storage) with Azure DevOps CI/CD for zero-downtime releases.

EDUCATION

University of Liverpool   **Sep. 2024 – Sep. 2025**
Master of Science in Advanced Computer Science, **Distinction**   Liverpool, United Kingdom

- **Key Modules:** Efficient Algorithms, Machine Learning and Multi-Core Programming

Sri Krishna College of Arts and Science   **Sep. 2020 – Sep. 2023**
Bachelor of Science in Computer Technology, **Distinction**   Coimbatore, India

TECHNICAL SKILLS

- **Languages:** C#, TypeScript, HTML5, CSS, Python, C++
- **Frameworks/Libraries:** .NET (ASP.NET Core, Web API), Angular, SignalR, FastAPI
- **Databases:** SQL Server, MongoDB, Radis (Caching)
- **Tools & DevOps:** Visual Studio (Code), Postman, Azure DevOps, Git, YAML Pipelines, Vercel, Cloudflare, Figma
- **Other:** Scrum & Agile Frameworks, OAuth 2.0, SAML & OpenID Connect