

Kostas Kilda

Software Developer

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PROFESSIONAL SUMMARY

Software developer experienced in backend development, web applications, infrastructure, and security. Designed and delivered a distributed multi-server engineering calculation platform end-to-end — from cloud architecture and containerised workloads through to production deployment, inter-service security, and traffic management. Developed multiple personal projects, including a fully automated content pipeline that distributes video across social media platforms. First-class BSc Computer Science graduate from Newcastle University.

WORK EXPERIENCE

Software Developer

April 2024 — Present

GeoMint • Lithuania • **Promoted from Junior, December 2024**

- Developed the full production environment from scratch — Django application, user authentication, PostgreSQL database architecture, Docker containerisation, task management, and APIs.
- Managed a PostgreSQL database including schema design, migrations, and user data management.
- Built a calculation server using FastAPI on a Linux cloud VM, with a custom async task queue, webhook-based job dispatch, and per-task Docker containers for heavy computation.
- Designed and built REST API endpoints with token-based authentication for secure communication between services and clients.
- Handled full S3 integration — file storage, retrieval, and presigned URL generation, replacing a local-only file storage approach.
- Set up CI/CD pipelines with automated testing to verify calculation accuracy against engineer-validated results and ensure system reliability across deployments.
- Implemented daily encrypted backups — full database dumps and incremental S3 file tracking to minimise redundant uploads.
- Built automated report generation in multiple languages, replacing a manual data-gathering and templating process. Exportable as Word and PDF, with data pulled directly from user input, calculation results and S3.

Junior Software Developer

August 2023 — January 2024

British Corner Shop • United Kingdom

- Created web scrapers in Python to automatically retrieve competitor pricing on 5,000+ products daily.
- Developed API integrations to update payment details on PayPal, handling 1,000+ daily transactions, and created webhooks for Adyen to capture payment confirmation during checkout.
- Built and maintained internal applications using Python and ASP Classic across multiple departments.
- Automated daily workflows and generated monthly financial reports using Bash, PowerShell, MySQL, and Python.

PROJECTS

Personal Website | Django, PostgreSQL

- Built a personal website that doubles as a centralised control hub for all automation systems and infrastructure monitoring. Publicly accessible with live system status.
- Tracks real-time Raspberry Pi hardware metrics including CPU/RAM usage, temperature, and system health.
- Monitors automation pipeline status with success/error tracking and alerting across all content distribution workflows.
- Aggregates social media analytics, displaying follower counts and view metrics across YouTube, Instagram, Facebook, and TikTok.

Content Automation Platform | Python, PostgreSQL, Raspberry Pi, FFmpeg, REST APIs

- Built an end-to-end content automation pipeline that generates and publishes 30+ videos daily across 10 channels spanning YouTube, Instagram, Facebook, and TikTok.
- Integrated Meta Graph API for cross-platform analytics, with automated token management and metrics tracking.
- Implemented a multi-service TTS failover chain (Unreal Speech, Cartesia, ElevenLabs) with multiple API keys per provider for resilience.
- Used local speech-to-text (Vosk) on Raspberry Pi for offline subtitle generation.
- Built automatic error reporting that surfaces pipeline failures on the public dashboard, with detailed error messages restricted to authenticated users.

Home Solar Automation | Python, PostgreSQL, Raspberry Pi

- Built a system that monitors real-time solar panel generation and automatically controls home appliances and smart sockets based on current output.
- Stores user-defined schedules and minimum power thresholds in PostgreSQL, triggering appliances only when solar generation meets the required input.

Additional projects and demos available on my personal website.

EDUCATION

BSc Computer Science — First Class Honours

Graduated Summer 2023

Newcastle University • Newcastle upon Tyne, United Kingdom

- **Key modules:** Software Systems Design and Implementation, Distributed Systems, Algorithm Design and Analysis, Security Programming, Cryptography, Computer Vision & AI.

TECHNICAL SKILLS

Languages: Python, JavaScript, SQL, Bash, PowerShell

Frameworks: Django, Django REST Framework, FastAPI

Infrastructure: Docker, Nginx, Linux (Ubuntu)

Databases: PostgreSQL, MySQL

Cloud & DevOps: Git, AWS S3, CI/CD pipelines, cloud infrastructure management

APIs & Integrations: REST API design, Meta Graph API, PayPal, Adyen, various TTS services

LANGUAGES

Lithuanian (Native) | English (Fluent)