ANGELOS PANAGIOTOPOULOS

Email: angelospanag@protonmail.com

Website: https://www.angelospanag.me

GitHub: @angelospanag

BACKEND DEVELOPMENT

Programming Languages	Go, Python
Web Frameworks	Huma (Go), FastAPI (Python), Django (Python)
Dependency Management	Go modules (Go), uv (Python)
Data Handling and Analysis	Pydantic, Pandas, NumPy, GORM, SQLAlchemy, Alembic, sqlc
Scheduling and Messaging	RabbitMQ, Apache Kafka, AWS SQS/SNS, Celery
Linting/Formatting/Type Checking	golangci-lint (Go), ruff (Python), mypy (Python)
Documentation	OpenAPI, Markdown
Testing	Testcontainers, testify (Go), pytest (Python)

FRONTEND DEVELOPMENT

Programming Language	TypeScript
Runtime	Node.js
Dependency Management	pnpm, npm
Frameworks and Libraries	React, Next.js (App Router), Vite, Tanstack Router, Tanstack Query
Styling and Component Libraries	Tailwind CSS
Client Generation	Orval
Linting & Formatting	eslint, Prettier

DATABASE AND DATA VISUALIZATION

Databases	PostgreSQL, MySQL, Neo4j, Elasticsearch, AWS DynamoDB
ORM and Migrations	sqlc (Go), SQLAlchemy (Python), Alembic (Python)
Data Visualization and Network Analysis	Cytoscape.js, D3.js, NetworkX

DEVOPS/DEPLOYMENT/CLOUD

Containerization and Orchestration	Docker, AWS ECS/Fargate
Infrastructure as Code	AWS CDK, Terraform, terraform-exec
CI/CD	GitLab CI/CD, GitHub Actions, CircleCI
Cloud Platforms	AWS (Certified Developer - Associate), GCP
Operating Systems	MacOS, GNU/Linux (Ubuntu, Debian), Windows/WSL2

MONITORING AND LOGGING

Monitoring Tools	Grafana, AWS CloudWatch
Structured logging Libraries	slog (Go), structlog (Python)

AGILE METHODOLOGIES

Agile Practices	Scrum, Kanban

WORK EXPERIENCE

Stadion   April 2025 - Current
Backend Engineer (Go/Python)   *London, UK*

· Built and maintained **AWS backend systems** for live tennis data, with ingestion pipelines on **Lambda/S3**, backend services on **ECS Fargate**, and persistence in **RDS MySQL**.
· Stabilised ingestion of external partner data for **high-profile tennis tournaments through finals**, reliably handling heavy traffic with **zero production incidents**.
· **Migrated legacy Python (Flask) services to Go**, reducing **CPU/memory usage** and **monthly ECS costs**, while increasing throughput and scalability.
· Reduced live sports data response times from ˜**20 seconds to milliseconds** under peak tournament traffic.
· Optimised **MySQL queries** using a combination of **GORM and raw SQL**, reducing database load and improving efficiency.
· Fixed broken database migrations using **GORM**, improving reliability and maintainability of the data layer.
· Reduced **JSON response payloads by up to 90%**, lowering latency and bandwidth for high-traffic endpoints.
· Designed and tuned **CloudFront caching strategies** for live scoring endpoints, balancing freshness and performance.
· Upgraded remaining services: **Go to 1.25** and **Python to 3.13–3.14**.
· Documented APIs using **code-first OpenAPI specifications** with **Go/Huma**.
· Introduced **structured logging** across ECS Fargate services and Lambda, using **CloudWatch queries** to monitor performance and track live data pipelines.
· Implemented **CI/CD pipelines in GitLab and GitHub**, including automated **linting, formatting, unit, and integration tests (Testcontainers)**.
· Improved Python developer experience by introducing **uv** for dependency management and **Ruff** for linting/formatting; standardised Go quality with **golangci-lint** for linting and formatting.
· Implemented **multi-stage Docker builds** for Go and Python services, reducing image sizes and accelerating ECS Fargate deployments.

Elsewhen   February 2025 - April 2025
Freelance Cypher Python Engineer   *London, UK*

· Designed RESTful APIs using Python and FastAPI to support audience targeting and insight generation for advertising initiatives.
· Designed and executed data migration pipelines between relational and graph databases, maintaining data integrity throughout.
· Integrated and managed data across Neo4j and PostgreSQL, leveraging graph structures to model relationships.
· Used SQLAlchemy for PostgreSQL ORM and Alembic for version-controlled schema migrations.
· Enforced maintainable code standards using ruff for linting/formatting and mypy for static type checking.
· Developed interactive graph visualizations using Cytoscape.js and React to surface insights and facilitate analysis.
· Delivered live demos and presented progress in weekly stakeholder meetings, gathering feedback and aligning technical direction with upcoming sprint goals.

Accenture   October 2022 - February 2025
Application Lead/Full Stack Engineering Associate Manager   *London, UK*

· Led development of internal platforms for reporting CVEs to clients and enabling red teams to automate infrastructure deployment for penetration testing.
· Mentored junior engineers across API development, frontend/backend architecture, and DevOps practices.

- Built API backends in Python (FastAPI) and Go (Huma), with OpenAPI for documentation.
- Integrated Terraform (via terraform-exec) with backend services; implemented RabbitMQ queuing for scalable, async infrastructure workflows.
- Developed React/TypeScript frontends with Next.js or Tanstack Router + Vite; styled with Tailwind CSS.
- Generated type-safe React clients using Orval (OpenAPI + Tanstack Query).
- Set up GitLab CI/CD pipelines for automated testing and deployment.
- Visualized infrastructure with Cytoscape.js for relationship management and clarity.
- Implemented JWT auth with AWS Cognito and Azure Entra, supporting MFA and custom UI.
- Used PostgreSQL with SQLAlchemy (Python) and sqlc (Go) for robust data handling.
- Deployed containerized services on AWS Fargate; created serverless pipelines using AWS SNS, SQS, and Lambda.
- Defined infrastructure as code using AWS CDK (TypeScript) for streamlined deployments.

Infinity Works (part of Accenture) April 2021 - September 2022
Senior Consultant *London, UK*

- Built a document ingestion and search platform to improve data retrieval for an insurance client.
- Refactored legacy services into scalable APIs using Python 3.10, FastAPI, PostgreSQL, and Elasticsearch (deployed via AWS ECS/Fargate and API Gateway).
- Enhanced Elasticsearch with domain-specific query language, advanced filters, snippets, and phrase matching; led index migrations to optimized schemas.
- Added OCR support via Apache Tika in ingestion pipelines using AWS SQS and Dockerized services.
- Implemented JWT-based auth (FastAPI + PyJWT) and structured logging with structlog; integrated Grafana for monitoring and alerting.
- Improved frontend UX with Next.js and TypeScript.
- Set up GitHub Actions CI/CD with Poetry, pytest, black, and flake8 to ensure code quality and test coverage.
- Deployed infrastructure via Terraform; mentored team members on modern Python, containerization, and testing best practices.

KPMG UK July 2019 - February 2021
Senior Software Engineer *London, UK*

- Delivered technical solutions for finance clients as part of a management consulting team.
- Led integration with external JSON APIs (e.g., Companies House, Equifax), storing data in Neo4j and performing network analysis with NetworkX.
- Built an interactive web-based network visualization tool using FastAPI, React, and D3.js.
- Developed a rule-based loan approval engine and automated Excel report generator using Python, Flask, and openpyxl.
- Designed and implemented secure auth flows for internal and external users.
- Coordinated with stakeholders to define schemas and ensure seamless API integration.
- Acted as team lead and mentor, supporting engineers and apprentices in a collaborative environment.

MediaMath August 2017 - July 2019
Software Engineer *London, UK*

- Developed custom integrations with the TerminalOne ad-exchange platform.
- Led real-time tracking of advertising entities using Go, Kafka, and PostgreSQL for downstream processing and third-party notifications.
- Built scheduling and workflow systems for future campaigns and bidding strategies with Python, Flask, Celery, and PostgreSQL.
- Guided an offshore team on architecture, best practices, and deployment of a greenfield bidding automation and forecasting platform.

Sainsbury's   May 2016 - July 2017
Software Engineer   *London, UK*
· Part of the 'Groceries On Line' and 'Entertainment on Demand' teams at Sainsbury's.
· Implemented backend logic for a range of e-commerce services about grocery shopping including product placement, basket, payments using microservices-oriented architecture (Go, Gorilla, Kong).
· Implemented backend logic for e-commerce services about shopping electronic media (music, books, movies) and integration with external payment gateway that handled customer payments and refunds (PHP, Slim).

Telemetry   February 2015 - May 2016
Software Engineer   *London, UK*
· Part of the developer team of the Telemetry SaaS platform responsible for providing advertising metrics, reporting and fraud detection.
· Automated query generation for inserting new metrics aimed at fraud detection.
· Automated the online generation of reports containing summaries of advertising creatives aimed at vendors.

Aubay   November 2012 - June 2014
Software Development Engineer for Amadeus IT Group   *Sophia Antipolis, France*
· Part of the Altea Group Manager project responsible for handling airline group reservations.
· Implemented web services facilitating quotation for segment-based/origin and destination airlines including business rules (reservations, child discounts, location based quotations).

EDUCATION

University of Southampton   September 2011 - September 2012
MSc Software Engineering (Merit)   *Southampton, UK*

University of Piraeus   September 2005 - July 2010
BSc Digital Systems / Communication Systems and Networks (2:1)   *Athens, Greece*

American College of Greece   September 1999 - July 2005
Secondary school (18.3/20)   *Athens, Greece*

OTHER EXPERIENCE

Personal website
https://www.angelospanag.me
· My personal website made in Next.js, using Namecheap for domain registration and hosted on Vercel
· Code available on my GitHub: https://github.com/angelospanag/my-personal-site

WordPress photography blog
https://jimpanagphotography.wordpress.com
· Created and actively managing a blog for my father who is interested in photography

Military service at the 2nd Battalion of Fighting Helicopters   Nov 2010 - Aug 2011
Private   *Greece*
· Military Occupational Specialty (MOS): Clerk/Computer operator

NON-TECHNICAL

· Languages: English (bilingual proficiency), French (professional working proficiency), Greek (native)
· Dual citizenship (British, Greek)
· European driving licence