

# ANGELOS PANAGIOTOPOULOS

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## BACKEND DEVELOPMENT

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

## FRONTEND DEVELOPMENT

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

## DATABASE AND DATA VISUALIZATION

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

## DEVOPS/DEPLOYMENT/CLOUD

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

## MONITORING AND LOGGING

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<b>Monitoring Tools</b>	Grafana, AWS CloudWatch
<b>Structured logging Libraries</b>	slog (Go), structlog (Python)

## AGILE METHODOLOGIES

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<b>Agile Practices</b>	Scrum, Kanban
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## WORK EXPERIENCE

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### **Elsewhen**

*Freelance Cypher Python Engineer*

February 2025 - April 2025

*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**

*Application Lead/Full Stack Engineering Associate Manager*

October 2022 - February 2025

*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)**

*Senior Consultant*

April 2021 - September 2022

*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***Senior Software Engineer*

July 2019 - February 2021

*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***Software Engineer*

August 2017 - July 2019

*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***Software Engineer*

May 2016 - July 2017

*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***Software Engineer*

February 2015 - May 2016

*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***Software Development Engineer for Amadeus IT Group*

November 2012 - June 2014

*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**

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**University of Southampton***MSc Software Engineering (Merit)*

September 2011 - September 2012

*Southampton, UK***University of Piraeus***BSc Digital Systems / Communication Systems and Networks (2:1)*

September 2005 - July 2010

*Athens, Greece*

## OTHER EXPERIENCE

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### 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  
Greece

Private

- Military Occupational Specialty (MOS): Clerk/Computer operator

## NON-TECHNICAL

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