

# ANGELOS PANAGIOTOPOULOS

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## TECHNICAL SKILLS

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Backend programming	Python, Go
Frontend programming	TypeScript, JavaScript, Next.js, React, HTMX, Tailwind CSS
Web frameworks	FastAPI, Django, Flask, Gin
Databases	PostgreSQL, SQLAlchemy, Alembic, Elasticsearch, AWS DynamoDB
Data & Visualisation	PySpark, Pandas, NumPy, Matplotlib, NetworkX, D3.js
Scheduling and Messaging	Apache Kafka, AWS SQS/SNS, Celery, RabbitMQ
Test automation	pytest, BDD, Gherkin, Behave
Documentation tools	OpenAPI (Swagger), Markdown
Linting & Formatting	PEP8, ruff, black, flake8, mypy, golint, ESLint, Prettier
Deployment	Docker, AWS ECS/Fargate, AWS CDK, Terraform, Git
Cloud Services	AWS (Certified Developer - Associate), GCP (Associate Cloud Engineer)
CI/CD	GitHub Actions, CircleCI
Logging/Monitoring	structlog, Grafana, AWS CloudWatch
Operating systems	GNU/Linux (Ubuntu, Debian), WSL2, MacOS, Windows
Agile methodologies	Scrum, Kanban

## WORK EXPERIENCE

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### Accenture

October 2022 - current

*Application Lead/Application Development Associate Manager*

*London, UK*

- Led a team in developing an internal cybersecurity reporting platform, notifying customers of potential CVEs in their application software
- Developed API backend services using Python with FastAPI and Go with Gin
- Created frontend services using React with Next.js, utilizing the App Router for navigation, and TypeScript, styled with Tailwind CSS
- Implemented JWT-based authentication and authorization using Amazon Cognito, with secure login mechanisms, including multi-factor authentication, and custom styles for an enhanced user experience
- Utilized PostgreSQL for storage and employed SQLAlchemy with Alembic for database migrations
- Deployed API and UI on AWS Fargate, leveraging Docker for containerization
- Established serverless data pipelines with fan-out/subscription patterns using SNS, SQS, and Lambda
- Defined infrastructure as code using AWS CDK in TypeScript

### Infinity Works (part of Accenture)

April 2021 - September 2022

*Senior Consultant*

*London, UK*

- Performed consulting services as part of a Data Engineering team responsible for developing a document ingestion and content searching platform for a client in the insurance sector
- Redesigned and modernised legacy services to scalable APIs responsible for querying ingested document content using modern Python features (3.10), FastAPI, Elasticsearch, AWS ECS/Fargate, Amazon API Gateway and PostgreSQL
- Introduced advanced querying features for ingested document content in Elasticsearch: domain search language in queries using boolean logic and phrase matching, highlights/snippets of results and filtering capabilities
- Performed large scale Elasticsearch indices migrations to proper schemas for more efficient querying
- Introduced structured logging techniques across all services using structlog and facilitated the usage of query visualisations plus alerting through Grafana

- Implemented authentication/authorisation of backend services using JSON Web Tokens (JWT) with FastAPI and PyJWT
- Assisted in developing a document ingestion pipeline (AWS SQS, Docker/ECS/Fargate) and introduced content ingestion with OCR capabilities using Apache Tika
- Improved the UI of the document searching platform using Next.js and TypeScript
- Advocated for and implemented proper CI/CD workflows in GitHub Actions for deploying containerised Python projects in Docker with proper test coverage using pytest/pytest-mock, linting using flake8, formatting using black and Poetry for dependency management
- Performed infrastructure deployments in AWS using Terraform
- Mentored team members in the usage of modern practices in Python development/testing and containerisation through presentations and practical examples (FastAPI, SQLAlchemy, Pydantic, Poetry, pytest, Docker)

## **KPMG UK**

*Senior Software Engineer*

July 2019 - February 2021

*London, UK*

- Part of the Financial Services - Management Consulting team providing technical solutions to clients in the finance sector
- Performed retrieval of companies' data from external 3rd party JSON APIs (Companies House, Equifax), deduplication of entries using Machine Learning (dedupe), storage in graph databases (Neo4J), network analysis of their relationships (NetworkX) and visualisation of their associated network as a web service (FastAPI, React, D3)
- Implemented a rule-based loan approval service and automatic report generation based on historical client data (Python, Flask)
- Implemented authentication/authorisation workflows (frontend/backend) for external and internal clients
- Collaborated with external/internal stakeholders during weekly meetings regarding schema definition and proper integration of 3rd party JSON APIs with internal services
- Acted as a team lead and mentor to a team of engineers and apprentices

## **MediaMath**

*Software Engineer*

August 2017 - July 2019

*London, UK*

- Part of the Technology Solutions team at MediaMath responsible for developing custom integrations with the TerminalOne ad-exchange buying platform
- Performed real-time tracking and consuming of MediaMath advertising entities for postprocessing and notification to third-parties (Go, Kafka, PostgreSQL)
- Implemented future scheduling/creation workflows of advertising campaigns and bid pricing strategies (Python, Flask, Celery, PostgreSQL)
- Mentored and assisted an off-shore team for project architecting, best development practices and deployment of a greenfield project involving bidding automation and forecasting (Python, Flask)

## **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 Altéa 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*

- Dissertation: Time series analysis of social network activity

### **University of Piraeus**

*BSc Digital Systems / Communication Systems and Networks (2:1)*

September 2005 - July 2010

*Athens, Greece*

- Dissertation: Development of a network management application using SNMP++ and Qt4

### **American College of Greece**

*Secondary school (18.3/20)*

September 1999 - July 2005

*Athens, Greece*

- Attended daily lessons of English Literature

## **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**

*Private*

Nov 2010 - Aug 2011

*Greece*

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

## **NON-TECHNICAL**

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- Languages: English (bilingual proficiency), French (professional working proficiency), Greek (native)
- ILR (settled status) granted under the EU Settlement Scheme
- European driving licence