

ANGELOS PANAGIOTOPOULOS

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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, Matplotlib, SQLAlchemy, Alembic, sqlalchemy
Scheduling and Messaging	RabbitMQ, Apache Kafka, AWS SQS/SNS, Celery
Linting & Formatting	golangci-lint (Go), Go fmt (Go), ruff (Python)
Documentation	OpenAPI, Markdown
Testing	testify (Go), pytest (Python)

FRONTEND DEVELOPMENT

Programming Language	TypeScript
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, 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
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WORK EXPERIENCE

Accenture

October 2022 - current

Application Lead/Application Development Associate Manager

London, UK

- Served as Lead Developer in the design and implementation of internal cybersecurity services, including a reporting platform for notifying external clients of potential CVEs and their scoring, and a platform enabling infrastructure deployment used by internal red teams for conducting and automating penetration testing.
- Mentored junior team members in best practices and technical skills across a range of technologies and frameworks, including API development, frontend, backend, and infrastructure deployment.
- Developed API backend services using Python (FastAPI) and Go (Huma), generating API documentation through OpenAPI.
- Integrated and automated Terraform functionality with backend services using terraform-exec, improving deployment efficiency.
- Created queuing logic for infrastructure deployment workflows using RabbitMQ and Terraform, enhancing scalability and asynchronous processing for automated deployment tasks.
- Built frontend services with React/TypeScript, using Next.js (App Router) or Tanstack Router with Vite for application structure, and styled components with Tailwind CSS.
- Used Orval to generate TypeScript and Tanstack Query clients for streamlined API integration in React, ensuring type-safe and efficient data handling.
- Led and implemented CI/CD pipelines on GitLab for automated testing and deployment, increasing reliability and speed of application updates.
- Developed dynamic visualizations of deployed infrastructure and their associated entities using Cytoscape.js, enabling users to easily understand and manage relationships within their deployment environments.
- Designed JWT-based authentication and authorization for frontend and backend services in AWS (Amazon Cognito/Amplify.js) and Azure (Microsoft Entra), incorporating multi-factor authentication and custom styling for enhanced user experience.
- Utilized PostgreSQL with SQLAlchemy (Python) and sqlc (Go) for efficient database management.
- Deployed backend and frontend services on AWS Fargate using Docker for containerization, ensuring scalable and reliable services.
- Established serverless data pipelines with fan-out/subscription patterns using AWS SNS, SQS, and Lambda, optimizing data processing workflows.
- Defined infrastructure as code using AWS CDK in TypeScript, streamlining deployment processes.

Infinity Works (part of Accenture)

April 2021 - September 2022

Senior Consultant

London, UK

- Performed consulting services as part of a Data Engineering team, developing a document ingestion and content searching platform that improved data retrieval efficiency for a client in the insurance sector
- Redesigning and modernized legacy services into scalable APIs for querying ingested document content, utilizing Python 3.10, FastAPI, Elasticsearch, AWS ECS/Fargate, Amazon API Gateway, and PostgreSQL
- Introduced advanced querying features in Elasticsearch, including domain-specific search language, boolean logic, phrase matching, result highlighting/snippets, and filtering capabilities
- Conducted large-scale Elasticsearch index migrations to optimized schemas
- Implemented structured logging across all services using structlog, and facilitated query visualizations and alerting through Grafana. Developed backend authentication and authorization using JSON Web Tokens (JWT) with FastAPI and PyJWT
- Assisted in creating a document ingestion pipeline using AWS SQS, Docker/ECS/Fargate, and introduced OCR capabilities with Apache Tika.
- Improved the UI of the document searching platform using Next.js and TypeScript, enhancing user experience and usability

- Advocated for and implemented CI/CD workflows in GitHub Actions for deploying containerized Python projects, ensuring high test coverage with pytest/pytest-mock, code quality with flake8, formatting with black, and dependency management with Poetry
- Executed infrastructure deployments in AWS using Terraform, ensuring scalable and reliable environments
- Mentored team members in modern Python development/testing practices and containerization, providing presentations and practical examples on FastAPI, SQLAlchemy, Pydantic, Poetry, pytest, and Docker

KPMG UK

Senior Software Engineer

July 2019 - February 2021

London, UK

- Part of a Financial Services - Management Consulting team, delivering technical solutions to clients in the finance sector
- Led retrieval of company data from external 3rd party JSON APIs (Companies House, Equifax), stored data in graph databases (Neo4J), performed network analysis (NetworkX), and visualized the network as a web service using FastAPI, React, and D3
- Developed a rule-based loan approval service and automated report generation system, exporting Excel files using openpyxl, based on historical client data with Python and Flask
- Implemented comprehensive authentication and authorization workflows for both external and internal clients, enhancing security and user experience
- Collaborated with external and internal stakeholders during weekly meetings to define schemas and ensure proper integration of 3rd party JSON APIs with internal services
- Acted as a team lead and mentor to a team of engineers and apprentices, fostering a collaborative and growth-oriented environment

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
- Led real-time tracking and consumption of MediaMath advertising entities for post-processing and notification to third parties using Go, Kafka, and PostgreSQL
- Implemented scheduling and creation workflows for future advertising campaigns and bid pricing strategies using Python, Flask, Celery, and PostgreSQL
- Mentored and assisted an offshore team in project architecture, best development practices, and deployment of a greenfield project involving bidding automation and forecasting using Python and 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

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

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

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