

# George Vasilakopoulos

## AI & Software Engineer

From Mathematics and Data Science to Software Engineering and System Design.

### EXPERIENCE

#### AI & Software Engineer - UBS Zurich

Legal Tech

02.2024 - present

- **Semantic Search Engine** ☒  
Legal Documents Semantic Indexing and Searching with LLMs.  
Python APIs: Request-Response and Event-Driven architecture to ingest, clean, chunk, embed and search millions of documents, designed for concurrent requests (asyncio, spacy, pydantic etc, in OOP and FP paradigm).  
Services & Storage: Azure OpenAI, AI Search, Blob Storage, Cosmos DB.  
Message Broker: Azure Service Bus.  
CI/CD Pipelines & IaC: Gitlab Pipelines, Terraform.  
Extra Responsibilities: Software Component Manager.

#### AI & Data Engineer - Credit Suisse Zurich

CTOO

01.2023 - 01.2024

- **Automation of Data Quality Evaluation** **+**  
Machine Learning as a Service (MLaaS) solution design and implementation.  
Backend Architecture: Python FastApi with InfluxDB.  
Training Pipelines: Prefect.  
CI/CD Pipelines: Jenkins.  
Deployment: Openshift(Kubernetes, Docker).
- **Evaluation of Data Similarity Ingested from External Sources** **+**  
Big Data Pipeline Solution.  
Storage Layer: HDFS.  
Data Warehouse: Hive.  
Data Ingestion Layer: NiFi.  
Transformation Layer: Dbt and Spark.

#### Full Stack / Quant Engineer - Credit Suisse Zurich

Private Equity Markets

11.2021 - 12.2022

- **End-to-end Private Equity Portfolio Report** ☒  
Backend Architecture: .NET Framework with C# and MS SQL Server.  
Frontend Architecture: Angular Framework with Typescript.  
Report Server: SQL Server Reporting Services (SSRS).  
400 PE Client Reports are produced per month on average.
- **Private Equity Portfolio Forecast using Statistical Models** ☒  
Statistical Models: Yale model, CIR model etc.  
RestApi (Python Flask) was implemented to expose the statistical prediction output to the Report Server (Power BI) in real-time.

#### AI Researcher - IBM Research Zurich

Computational Systems Biology Lab

05.2021 - 10.2021

- Artificial Intelligence (NLP) approach to model the binding procedure of T-cell receptors (TCRs) and foreign antigens, by designing a Classifier Variational Autoencoder Model in a semi-supervised learning fashion.

### EDUCATION

#### ETH Zurich, Switzerland — MSc Data Science

09.2018 - 11.2021

Grade: 5.55/6

Courses: Advanced Machine Learning, Big Data, Data Management Systems, Computational Biomedicine, Computational Intelligence Lab, Computational Statistics, Data Science Lab, Machine Learning for Health Care, Natural Language Understanding, etc.

#### University of Patras, Greece — BSc Mathematics

09.2013 - 07. 2018

Grade: Excellent 8.81/10. Graduated in the Top 2% of Class.  
Specialization in Probabilities, Statistics, and Operational Research.  
Thesis: Game Theoretical Aspects of Queueing Systems.



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### SKILLS

Artificial Intelligence

Statistics

Full Stack Development

Data Structures & Algorithms

Software Design

Azure

HDFS, MongoDB, InfluxDB

SSRS, Power BI

PyTorch, Pandas, Spark

Python, Java, R, C#, SQL

### TEST SCORES

**GRE** 01.2018

169/170 Quantitative Part

**Mathematics-Panhellenic Examination** 05.2013

Excellent 93%

Among the best 2% in Greece

### MENTORSHIP

Powercoders

Job Coach for young professionals

### LANGUAGES

Greek: Native

English: Proficiency

☒ : Production

**+** : PoC