George Vasilakopoulos

AI & Software Engineer

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

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EXPERIENCE

AI & Software Engineer - UBS Zurich
Legal Tech

02.2024 - present

- **Legal 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 Responsibilites: 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.

SKILLS

Artificial Intelligence

Statistics

Full Stack Development

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

LANGUAGES

Greek: Native

English: Proficiency

☑ : **Production**
\+ : **PoC**