

Fivos Allagiotis

Mountain View, CA | 412-657-3706 | foivos.all@gmail.com | linkedin.com/in/fivos-allagiotis/ | github.com/foivos-all

EDUCATION

Carnegie Mellon University M.S. in Information Technology – Information Security	Pittsburgh, PA Jan 2023 – Jan 2025 GPA: 3.93
University of Patras M.S. in Computer Engineering	Patras, GR Oct 2021 – Jun 2022 GPA: 3.63
University of Patras B.S. in Computer Engineering	Patras, GR Oct 2017 – Aug 2021 GPA: 3.30

EXPERIENCE

AI/ML Software Engineer Pervaziv AI	Feb 2025 – Present Sunnyvale, CA
<ul style="list-style-type: none">Built an agentic IDE extension using Google ADK and MCP connectors for secure code generation workflows (100+ users)Contributed to Meta's PurpleLlama project, enabling secure code benchmarking for fine-tuned LLMs including GeminiOptimized LLMs using RAG techniques and external knowledge bases, improving code understanding accuracy by 27%	
Machine Learning Engineer Intern Pervaziv AI	May 2024 – Aug 2024 Mountain View, CA
<ul style="list-style-type: none">Designed, implemented, and deployed SecOps features using fine-tuned Gemini and OpenAI models for NLP and GenAI tasksIncreased ML-based vulnerability detection rate by 430% through advanced feature engineering and model optimizationReduced ML inference time by 65% for AI-driven code remediation by optimizing data pipelines and model deployment	
Machine Learning Researcher University of Patras	Feb 2020 – Jun 2022 Patras, GR
<ul style="list-style-type: none">Published 3 peer-reviewed papers on applying machine learning to optimize 5G networks performance and resource allocationAuthored a 40-page book chapter on emerging ML techniques used in 5G Networks, focusing on data-driven optimizationPresented findings in 3 accredited 5G international conferences	

PROJECTS

ML-Based Fraud Detection System with Agentic Analysis Real-Time & Batch Transaction Monitoring	Oct 2025 – Jan 2026 Python, Google ADK, AWS
<ul style="list-style-type: none">Developed an ML-based fraud detection system using XGBoost for real-time transaction classification with 99% accuracyImplemented AI agents for temporal pattern analysis, enabling cross-transaction correlation for enhanced fraud detection	
Practicum Project - Data Science CMU/Heinz - AdBlocker Project	Aug 2024 – Dec 2024 Python, Apache Spark, Pandas
<ul style="list-style-type: none">Led the analysis of 1TB+ of user interaction data using Apache Spark, building data loaders for large-scale ML experimentsDeveloped and benchmarked ML models in PyTorch and TensorFlow, focusing on experiment design and evaluation metrics	
Leveraging Generative AI for Log Analysis Tools Investigation of AI-Assisted Log Analysis	Mar 2024 – Apr 2024 Python, LangChain, Agentic AI
<ul style="list-style-type: none">Developed a LangChain-based agent to process and analyze structured and unstructured log data, enhancing forensic analysisBuilt a Streamlit UI for interactive data exploration and annotation, supporting user experience and readability	
GNN for C2 Channel Detection Graph Convolutional Neural Networks	Jan 2024 – April 2024 Python, PyTorch, GNNs
<ul style="list-style-type: none">Built and deployed a GNN for sequence and pattern detection, achieving 90.3% detection accuracy in real-world scenariosImplemented the model in PyTorch using GCNConv library, with experiment tracking and performance analysis	
Machine Learning Techniques to Improve Resource Allocation in 5G Networks Deep Reinforcement Learning	Oct 2022 – Jun 2022 Python, Pandas, TensorFlow
<ul style="list-style-type: none">Developed Deep Reinforcement Learning algorithms for optimal resource allocation in simulated networks, leveraging DNNsAchieved 300% throughput increase, 150% QoS improvement, and 50% energy consumption using Deep Q-Learning	

PUBLICATIONS

Reinforcement Learning Approach for Resource Allocation in 5G HetNets 2023 International Conference on Information Networking (ICOIN), IEEE	Allagiotis, Fivos, et al. 2023
A Machine Learning Mechanism for Improved Energy Consumption in 5G Small Cells 2022 IEEE Symposium on Computers and Communications (ISCC)	Allagiotis, Fivos, et al. 2022
An Introduction of Upcoming Radio Resource Management Techniques for 5G Networks Advances in Engineering Research, Nova Science Publishers, Inc.	Bouras, Christos, et al. 2022

SKILLS

Programming Languages: Python, SQL, C/C++, Java, JavaScript, Bash, MATLAB
ML/DL Frameworks: PyTorch, TensorFlow, Keras, Hugging Face, XGBoost, Scikit-learn, spaCy, Ray, PySpark
LLMs & GenAI: OpenAI, Gemini, Anthropic, Llama, vLLM, RAG, LangChain, DSPy, Google ADK, Hugging Face Transformers
Cloud & Infrastructure: AWS (SageMaker, EC2, S3, CloudWatch), GCP, Azure, Docker, Kubernetes
Data & Databases: PostgreSQL, MongoDB, Pinecone, Qdrant, ETL pipelines, vector databases
Tools & Libraries: NumPy, Pandas, FastAPI, Git, Weights & Biases, MLflow, Streamlit, React.js