Nikolaos Pantelaios

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Ph.D. candidate in Natural Language Processing and Machine Learning. Proven success at Meta with scalable models saving $2.48 million annually. Strong leadership, effective communication, and adept time management skills to accelerate impactful global machine learning advancements.

EDUCATION

PhD, North Carolina State University, Computer Science Aug. 2024 (Expected)
Research Interests: Code Generation, Natural Language Processing, Systems, Security, Privacy

BSc & MSc, National Technical University of Athens, Computer Engineering 2018
Thesis: Personality Traits Recognition from Speech using Autoencoders

EXPERIENCE

Meta New York City, NY
Applied Machine Learning Research Intern May 2022 - Aug. 2022

- Saved an estimated $2.48 Millions/year in CPU and memory infrastructure costs with Word2vec models
- Developed 0-1 end-to-end pipelines and extracted metrics to improve automated labeling by 2% in 1 Trillion Facebook and Instagram database columns

ByteDance Mountain View, CA
Product Security Research Intern May 2021 - Aug. 2021

- Categorized 1 billion failed SSL/TLS TikTok certificates by security severity from untrusted sources
- Analyzed 2 petabytes of logs and SSL certificates to uncover new trends in failed SSL categories

ByteDance Mountain View, CA
Product Security Research Intern May 2020 - Aug. 2020

- Developed a comparison system to check for compromised accounts and bots in the TikTok user base
- Analyzed 50 Million accounts through Hive and Hadoop storing with Python and Golang

PROJECTS

LLM JavaScript Deobfuscator (Python, JavaScript) 2023 - 2024

- Achieved state-of-the-art performance in code deobfuscation using LLMs and malicious JavaScript
- Fine-tuned Llama-2-70B, Deepseek-LLM-67B & Gemma-7B LLMs using LoRA and PEFT

Forced Execution Browser for Evasion Detection (JavaScript, C++) 2022 - 2023

- Enhanced Chromium's code execution by 11%, detecting 28 malicious evasion categories in Node.js
- Flagged malicious code in 110 Chrome extensions, impacting over 2 million users, unsupervised learning

Malicious JavaScript Generator using Transformers (Python, C, JavaScript) 2021 - 2022

- Coordinated a group of 4 people to generate malicious JavaScript sequences using Transformers & PyTorch
- Detected malicious code snippets in-the-wild in C & JavaScript using a combination of fuzzing techniques.

PUBLICATIONS

Nikolaos Pantelaios, Nick Nikiforakis, Alexandros Kapravelos. You've Changed: Detecting Malicious Browser Extensions through their Update Deltas. In Proceedings, ACM, CCS, 2020.

SKILLS

Programming Languages: Python, C, C++, C#, Javascript, Golang, R, Java

AI Tools: LLM, Transformers, PyTorch, Tensorflow, Keras, Theano, HuggingFace, Autoencoders

Technical: PostgreSQL, MongoDB, Hive, Hadoop, Linux, Docker, Kubernetes