Teodor Fratiloiu

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I have the right to work in the UK and EU without sponsorship.

Profile

Recent graduate of the TUM with an MS degree in EE (ranked #18 worldwide in 2023). Currently located in the UK. Specialized in cybersecurity, and ML. During my studies, I gained work experience in a hyper-growth environment (5x team-level, 3x company growth) at Celonis, Germany's and New York's highest-valued startup.

Education

Technical University of Munich (TUM) –
M.Sc. Electrical Engineering and Information Technology *(2020-2023)*
B.Sc. Electrical Engineering and Information Technology (*2017-2020)*

Work Experience

Junior Information Security Analyst, Celonis; Munich (Germany) – Dec 2020 - Feb 2023 (Part-Time)
• Developed automations to collect over 50 types of evidence for compliance with ISO 27001 and SOC 2, identified and harmonized audit control gaps across various frameworks

• Helped author and test BC/DR plans for EMEA and NA entities, conferred with stakeholders to account for critical data assets in 2 enterprise SaaS products hosted in a multi-cloud environment (AWS, Azure and GCP)

• Periodically reviewed the access rights to cloud systems with up to 6-digit user counts; cross-queried databases to ensure appropriateness

• Assisted with writing security policies, SOPs, and training material, managed automated phishing training for the entire organization

Student Assistant, TUM – May 2020 - Jan 2021
Subjects included encryption, protocols, reverse engineering for research, and networks. I taught students from both the Munich and Singapore campuses via live or pre-recorded tutorials.

Member and Mentor, adveisor (TUM) – 2018 - 2019
Participated in a 1-year soft-skills and personal development program with professional coaching, including several 3-5 day offsite seminars in the Bavarian Alps. Applied the acquired knowledge by hosting over 10 project management and business communication workshops during my second year of university for "mentee" freshmen, which helped me find and perfect my own leadership style.

Skills

Programming – Python, C, C++11 and up, JavaScript/TypeScript, TensorFlow, Docker, Git, High Performance Computing, Embedded

Security – ISO 27001, SOC 2, NIST, OWASP

Technical Project Experience

Here, I would like to further explain my deeply technical background, which complements my work experience in cybersecurity.

Master's Thesis – Peeking Into the Decision-Making Process In the Human Mind via DL Models
• Collected labelled training data to represent >12,000 trades, architected and trained DL models to emulate human decision-making

• Used Python, TensorFlow, Keras, JAX

• Automated comparative assessments of "machine" and "human" decisions to generate real-time analytics of decision quality

Electricity Market Analytics Web App (with ML)
• Implemented a time-series prediction algorithm with reinforcement learning, incl. data scrubbing

• Developed full-stack web-app (Flutter, Docker)

Distributed, High Performance Computing Lab
• Solved a very large asynchronous value iteration problem using C++17 and multithreading

• Used multiprocessing (OpenMP), MPI, CFFI, and created my own build systems in CMake

Fully remote API-based IoT Programming Lab
• Wrote TypeScript routines for a remote IoT "factory" with sensor and servo arrays, handled multiple edge cases and robot kinematics

• Extensive API work, used CoAP and MQTT

Bachelor's Thesis – TinyFace: Extreme Edge Face Detection on Embedded Devices
• Trained, then compressed a neural network to function on low-power embedded hardware via pruning, graph analysis and quantization as part of a new research project (PhD level)

Real-Time STM32 Development Lab
• Complex project involving close to metal embedded programming in C, peripheral interaction, serial communication and extensive debugging; enforced real-time constraints

• Implemented task scheduling in RTOS, authored build systems and toolchains in CMake