# Teodor Fratiloiu

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**UK HPI Visa Holder (with right to work), EU Citizen**

## Profile

Recent graduate of the Technical University of Munich with an MS degree in computer engineering. Specialized in cybersecurity, machine learning and high-performance software development. During my studies, I gained **2 years** of 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**

• Developed automations to collect over 50 types of evidence for continuous 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

• Worked in AWS, Azure and GCP environments

• 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

**INFOSEC LECTURE STUDENT ASSISTANT, TUM – 2020**

Prepared lab content for students, explained solutions and hosted educational videos. Assisted the rest of the teaching staff during live remote classes for students in Munich and Singapore.

**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

**Security** – ISO 27001, SOC 2, NIST, OWASP

**Cloud** – AWS, Azure, GCP audit and deployment

**Programming** – C, C++11 and up, Python, JS/TS, TensorFlow/Keras, Docker & cloud, Git, UNIX

## 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 DEEP LEARNING MODELS**

• Collected and engineered labelled training data to represent >12,000 trading decisions, architected and trained deep learning models to emulate human decision-making (Keras, JAX)

• Assessed my own DL models against behavioral economics research results

**DISTRIBUTED, HIGH PERFORMANCE COMPUTING – LAB**

• Solved a very large asynchronous value iteration problem in C++17 and ensured thread security

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

**FULLY REMOTE API-BASED IOT PROGRAMMING – LAB**

• Wrote type-secure TypeScript routines for a remote IoT "factory" with sensors and servo robot and securely deployed said scripts over the public Internet with real-time monitoring

**FUTURE ELECTRICITY PRICE PREDICTION – TEAM PROJECT**

• Implemented a time-series prediction algorithm with reinforcement learning, developed our own type-secure full-stack app to visualize the results

**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); returned to embedded ML during my master's by re-engaging with the same group

**ASTEROIDS ON AN STM32 MOBILE CONSOLE – LAB**

• Close to metal implementation of the Atari classic in C on microcontrollers with color displays and joysticks, with cross-device multiplayer; enforced real-time computing

• Implemented task scheduling via an RTOS, wrote embedded build systems and toolchains