Tristan Benoit

Assistant Professor (Maître de conférences) in Computer Science at ENSICAEN

ENSICAEN, SAFE Team, GREYC Lab
6 Boulevard Maréchal Juin, 14000 Caen, France
+33 2 31 45 81 89
tristan.benoit@unicaen.fr

Education

2023 Ph.D. in Computer Science, Université de Lorraine, France.

2019 M.Sc. in Computer Science, ENS Lyon & Université Claude Bernard Lyon 1, France.

2017 B.Sc. in Computer Science, Université de Caen Normandie (UNICAEN), France.

Professional Experience

2025– Assistant Professor (Maître de conférences), ENSICAEN, Caen, France.
- Research: Binary program analysis, Application of AI to security
- Teaching: Computer science (with a focus on cybersecurity)

2025 Postdoctoral Researcher, Telecom Paris, France.
- Research: Software composition analysis after compilation

2023–2024 Postdoctoral Researcher, LMU Munich & Universität der Bundeswehr München, Germany.
- Research: Binary function name generation on stripped binary code
- Supervision: Master and bachelor theses

2022–2023 ATER as a Doctoral Student, Université de Lorraine, France.

2019–2022 Ph.D. Student, LORIA, Université de Lorraine, France.

Research

Keywords AI-driven Cybersecurity and binary analysis

Description Understanding binary code using AI, with applications in cybersecurity along with applications of AI to forensic and biometry.

Selected Publications

2025 BLens: Contrastive Captioning of Binary Functions using Ensemble Embedding. *USENIX Security Symposium, 2025* [HAL]

2023 Scalable Program Clone Search Through Spectral Analysis. *ESEC/FSE 2023* [HAL]

2021 Binary level toolchain provenance identification with graph neural networks. *SANER 2021* [HAL]

Full list HAL, Google Scholar, DBLP

Teaching

ENSICAEN Code security (3rd year), Databases (2nd year), Programming challenges (1st year)

ENSICAEN & UNICAEN Binary code reverse engineering (Cybersecurity Master)

Project and Thesis Supervision

Thesis

- Cono Paolo Santoro: Anomaly detection in traffic analysis, ENSICAEN
- Kevin Chen: Improving binary function embeddings, LMU Munich
- Victor Hucklenbroich: Attacking spectral analysis for program clone detection, LMU Munich
- Sebastian Marinus Paster: Prospective attacks against spectral analysis, LMU Munich
- Dominik Ramaj: Function name normalization for machine learning, LMU Munich
- Darius-Andrei Manea: Machine learning integration in spectral analysis, LMU Munich

Outreach Activities

Program Clone Search Talks

- Seminar, Ludwig Maximilian University (LMU) of Munich, Germany, 2024
- Seminar, CentraleSupélec Rennes, France, 2024
- Security & Cryptography Seminar, UNICAEN, France, 2023
- PEPR DefMal Meeting, Paris Cyber Campus, France, 2023
- 6th French-German Day for Cybersecurity, CISPA, Germany, 2023

Other

- Binary Code Provenance, 6th Franco-Japanese Cybersecurity Workshop, Online, 2022