

# Olivier Bemba

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[LinkedIn](#)

[GitHub](#)

[Website](#)



## Research Interest

Internet routing security, large-scale BGP data analysis, and network anomaly detection.

## Education

Aug. 2024 – PRESENT

- **Ph.D in Computer Science** - Georgia Institute of Technology  
*Atlanta, GA, USA*
  - Co-advised by Prof. Cecilia Testart & Prof. Alberto Dainotti

Aug. 2022 – May 2024

- **M.S. in Electrical and Computer Engineering** - Georgia Institute of Technology  
*Atlanta, GA, USA*
  - Co-advised by Prof. Cecilia Testart & Prof. Alberto Dainotti

Sept. 2020 – Jun. 2022

- **General Engineering Degree** - Telecom SudParis  
*Paris, France*

## Employment History

Aug. 2024 – PRESENT

- **Research Assistant** - Internet Intelligence Research Lab  
*Atlanta, GA, USA*
  - GRIP - Research & Development Contributor
  - Improve BGP hijacking detection with new classification rules
  - Contribute to long-term platform maintenance and stability

May 2025 - Aug. 2025

- **Research Intern** - ICube Laboratory  
*Strasbourg, France*
  - Supervised by Cristel Pelsser, Thomas Holterbach & Thomas Alfroy
  - DFOH - Development Contributor
  - Migrated the BGP data collection pipeline from BGPKIT to bgproutes.io, improving coverage and speed
  - Designed the PostgreSQL schema and REST API to better manage events data

May 2024 - Aug. 2024

- **Research Intern** - French Cybersecurity Agency (ANSSI)  
*Rennes, France*
  - Supervised by François Contat
  - TaBi - Research & Development Contributor
  - Migrated the tool from python2 to python3
  - Implemented event aggregation and refined the classification pipeline

## Employment History (continued)

Jan. 2023 - Jun. 2023

### ■ Research Intern - NICT

*Tokyo, Japan*

- Supervised by Dr. Fabien Charmet & Dr. Takeshi Takahashi
- Designed a web crawler to collect a training datasets for visual phishing detection
- Implemented Grad-CAM XAI method for Convolutional Neural Networks for better explainability

## Teaching Experience

Aug. 2025 - PRESENT

### ■ Graduate Teaching Assistant - Georgia Institute of Technology

*Atlanta, GA, USA*

- Course: CS6250 - Computer Networks
- Taught by Prof. Cecilia Testart

Aug. 2023 - May 2024

### ■ Graduate Teaching Assistant - Georgia Institute of Technology

*Atlanta, GA, USA*

- Course: CS6250 - Computer Networks
- Taught by Prof. Alberto Dainotti & Prof. Cecilia Testart

Aug. 2022 - Dec. 2022

### ■ Undergraduate Teaching Assistant - Georgia Institute of Technology Europe

*Metz, France*

- Course: ECE2031 - Digital Design Laboratory
- Taught by Prof. Simon Gautier

## Research Publications

- 1 O. Bemba, "A first look at autonomous systems recurrently causing bgp origination conflicts," M.S. thesis, Georgia Institute of Technology, 2024. ↗ URL: <https://hdl.handle.net/1853/75325>.
- 2 O. Bemba, C. Testart, and A. Dainotti, "Poster: Investigating autonomous systems recurrently causing unexplained (sub)moas events," in *Proceedings of the 2024 ACM on Internet Measurement Conference*, 2024.

## Skills

Languages	■ French: native, English: spoken and written
Programming	■ Python, Java, C, P4
Technologies	■ Git, Maven, Makefile
Machine Learning	■ Scikit-learn, TensorFlow, PyTorch
Software Programming	■ Object-oriented programming, algorithm design, data structures
Databases	■ MySQL, PostgreSQL, ElasticSearch