

# Olek Osikowicz

✉ amosikowicz1@sheffield.ac.uk

🔗 olek-osikowicz.github.io

🔗 olek-osikowicz

🎓 Google Scholar

## Education

- PhD University of Sheffield**, Computer Science Sheffield, UK  
Sept 2023 – present
- **Simulation-based testing of Autonomous Driving Systems (ADS)**
  - Applied machine learning to accelerate scenario-based ADS verification
  - Developed Multi-Fidelity Bayesian Optimization framework for ADS testing
  - Diagnosed and reduced flaky ADS tests caused by simulator nondeterminism
  - Appointed as Research Assistant facilitating international collaboration
  - Contributed to open-source ADS testing frameworks and tools
- BSc University of Sheffield**, Computer Science Sheffield, UK  
Sept 2020 – June 2023
- Graduated with First-Class Honours
  - Dissertation: *Autonomous Driving Systems Testing - grounded in reality test generation*

## Publications

- Multi-Fidelity Bayesian Optimization for Simulation-Based Autonomous Driving Systems Testing** June 2025  
*Olek Osikowicz*, Phil McMinn, Wei Xing, Donghwan Shin  
*Manuscript under review at the 2026 IEEE Intelligent Vehicles Symposium (IV 2026)*
- Empirically Evaluating Flaky Tests for Autonomous Driving Systems in Simulated Environments** Apr 2025  
*Olek Osikowicz*, Phil McMinn, Donghwan Shin  
[eprints.whiterose.ac.uk/222933](https://eprints.whiterose.ac.uk/222933) [🔗](#) 2025 IEEE/ACM International Flaky Tests Workshop (FTW 2025)

## Teaching

- Software Re-Engineering** [🔗](#) Mar 2024 – present  
Supporting undergraduate and master's students in re-engineering real-world Python projects.
- Introduction to Algorithms and Data Structures** [🔗](#) Feb 2023 – June 2023  
Running tutorial sessions for first-year students, explaining the principles of modern algorithms and data structures.

## Working Experience

- Dover Fueling Solutions**, Summer Intern Kraków, Poland  
June 2022 – Sept 2022
- Creating and testing fault-tolerant data pipelines on Microsoft Azure.
  - Worked with SQL warehouses and data lakes on the Databricks cloud platform.

## Skills

- Cloud Computing:** Building research computing pipelines with Docker, AWS (EC2, S3), and GCP (Cloud Run)
- Programming:** Proficient in Python; solid understanding of networking, DevOps, Git, and Linux
- Mathematics:** Strong foundation in calculus, linear algebra, and statistics
- Languages:** Polish (native), English (proficient), German (conversational)