

Olek Osikowicz

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Education

PhD	University of Sheffield , Computer Science	Sheffield, UK
	<ul style="list-style-type: none">• 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	Sept 2023 – present
BSc	University of Sheffield , Computer Science	Sheffield, UK
	<ul style="list-style-type: none">• Graduated with First-Class Honours• Dissertation: <i>Autonomous Driving Systems Testing - grounded in reality test generation</i>	Sept 2020 – June 2023

Publications

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

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

University of Sheffield , Research Assistant in Simulation-Based Testing	Sheffield, UK
<ul style="list-style-type: none">• Developing and evaluating state-of-the-art autonomous driving testing tools• Project: "Simulation-Based Testing for Mobility Cyber-Physical Systems of Systems"	June 2025 – present
Dover Fueling Solutions , Summer Intern	Kraków, Poland
<ul style="list-style-type: none">• Developing and testing fault-tolerant data pipelines on Microsoft Azure.• Worked with SQL warehouses and data lakes on the Databricks cloud platform.	June 2022 – Sept 2022

Skills

Cloud Computing: Building distributed computing pipelines with Docker, AWS (EC2, S3), and GCP (Cloud Run)
Programming: Proficient in Python for data and ML (NumPy, Pandas, PyTorch, PySpark), plus DevOps, Git, and Linux
Mathematics: Strong foundation in calculus, linear algebra, and statistics
Languages: Polish (native), English (proficient), German (conversational)