PAULIUS SKAISGIRIS

paulius@skaisg.eu skaisg.eu linkedin.com/in/paulius-skaisgiris gitlab.com/p-skaisgiris

PROFILE

I am a second year MSc Logic student at UvA interested in developing provably safe AI by employing scalable methods which provide formal guarantees. My background includes a solid track record of being successful in intense and demanding environments and offering effective team leadership. I enjoy understanding, simplifying, and communicating complex concepts clearly.

EXPERIENCE

Participant

AI Safety Camp

Jan 2024 – Present | Remote

- Leading conceptual research on a project aiming to design safety specifications and constrain foundation models via an API and formal grammars in a way that would allow us to monitor the systems and prove safety guarantees about it.

Python Teacher

CodeAcademy

Feb 2023 – Present | Remote

- Teaching Python basics as well as advanced topics such as Data analysis, Flask, Django, and Linux to career-shifting professionals.

Course Facilitator

Center for AI Safety

Jun 2023 – Aug 2023 | Remote

- Facilitated the Intro to ML safety course. Leading discussions and grading assignments about topics on Machine Learning Safety Engineering, Robustness, Monitoring, Alignment and others.

Machine Learning Engineer & Team Lead

IconPro GmbH

Aug 2021 – Aug 2022 | Aachen, Germany

- I was the core developer and supervised a team of seven to develop a time series analysis and forecasting tool in python end-to-end.
- Deep research into the literature of statistical time series forecasting, implementing methods from research papers.
- Applying our product and time series know-how in various Predictive Quality/Maintenance use-cases including AI-NET-ANIARA research project.

GIS Developer

Progira

Jun 2018 – Aug 2018; May 2019 – Jul 2021 | Vilnius, Lithuania; Remote

- Developed software used for spectrum planning and optimization, geospatial analytics, and Graphical User Interfaces for GIS object editing.

President of the Board

MSV Incognito

Jul 2020 – Jul 2021 | Maastricht, The Netherlands

- I led a 700-member association during the pandemic, managing a €5000 budget and transitioning to online platforms, while doubling active membership by introducing Special Interest Groups.

EDUCATION

MSc in Logic

University of Amsterdam

Sep 2022 – Present

Example courses: computational learning theory, causality, reinforcement learning, computational complexity, logics for safe AI, dynamic epistemic logic, topology, logic, and learning, mathematical structures in logic, functional programming.

BSc in Data Science and Artificial Intelligence

Maastricht University

Sep 2018 – Jul 2021

Thesis: *Formal Verification of Neural Networks for Sentiment Classification*

Supervisor: *Pieter J. Collins*

PROGRAMMING

Competent:

- Python
  - NumPy, SciPy, Pandas
  - Sci-kit learn, Tensorflow, PyTorch
  - Statsmodels, Kats
  - Matplotlib, Seaborn, Plotly
- C#
  - ArcObjects
  - Windows Forms
  - COM objects
- Java
  - swing

Familiar:

- PostgreSQL
- C
  - OpenMP
  - MPI
- julia
- R

Teacher

ICANCODE School

Oct 2020 – Jun 2021 | Maastricht, The Netherlands

- Taught algorithmic thinking to 7-9 year olds through creative and fun exercises using technologies such as Scratch, Minecraft code builder, Lego WEDO, basic HTML and CSS.

Research Student (Honours Research track)

Maastricht University

Sep 2019 – Jul 2020, Sep 2020 – Jan 2021 | Maastricht, The Netherlands

- Developed PySeidon, a data-driven framework in Python to simulate maritime port infrastructure and its agents, created methods for the tool to simulate anomalous situations in the port as well as tools to detect these non-standard behaviours.
- Carried out a simulation study for Port of Rotterdam using PySeidon to recommend best course of action in a given port situation. Wrote a paper on the findings which got published at a conference.

Faculty Student Ambassador

InterUM

Aug 2019 – Jun 2021 | Maastricht, The Netherlands

- I engaged with prospective students at university events, my program and faculty.

PUBLICATIONS

- **Skaisgiris, P.**, Simoncini, W., Barbero, F., Ahangi A., Möckel R. (2021). "Pyseidon - A Data-Driven Maritime Port Simulation Framework". *Proceedings of the International Conference on Computer Modeling and Simulation (ICCMS)*, ACM.

PROJECT HIGHLIGHTS

For a more complete list and descriptions of the projects, please visit the portfolio section of my website.

- Causality study - How Social Networks Influence One's Decision To Insure
- Measuring and mitigating factual hallucinations for text summarization
- Towards counterfactual logics for machine learning
- Topomodels in Haskell
- BSc Thesis - Formal Verification of Neural Networks for Sentiment Classification
- Aspect-Based Sentiment Analysis
- Analysis of Signal Messenger chat for a relationship anniversary

OTHER EDUCATION

Here is a list of non-university curricula I've completed:

- Applied time series forecasting
- Artificial General Intelligence Safety Fundamentals
- Artificial General Intelligence Safety Fundamentals 201
- Intro to Machine Learning Safety

TECHNOLOGIES

- Azure DevOps
- Linux/Unix
- Git
- Jupyter notebooks
- Docker
- ArcGIS
- Android Studio

LANGUAGES

Lithuanian	Native
English	Professional working proficiency

AWARDS

- The Amrapali Zaveri Award for Future Data Scientist 2022

REFERENCES

Professional and academic references available upon request.

OTHER INTERESTS

- Besides academia and research my main passion is music. I love attending concerts and I've been playing electric bass guitar on-and-off for 10 years. In the past I have played in a brass orchestra and a jazz big band.
- I am actively involved in AI Safety initiatives, especially the ones in Amsterdam, attending retreats, EA events. I recently led the organizational efforts for an AI Safety retreat in the Netherlands for which we received a grant from Open Philanthropy.
- When I have time, I also enjoy random hacking projects such as triggering an alarm through a Raspberry Pi when the CO2 level in the room is too high (high CO2 levels are bad for your brain).