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Personal information

Name	**Leon Ingelse**
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Education

Post-master's degree	Post-master's degree in **Methods and Techniques in Scientific Research** at the University of Lisbon, November 2022 - October 2023.
Master's degree	Master's degree in **Data Science** at the University of Lisbon, September, 2020 - October 2022. **(GPA : 18/20)** Thesis title: Optimisation of Feature Learning using Grammar-Guided Genetic Programming.
Bachelor	Bachelor's degree in **Mathematics** at the University of Amsterdam, September, 2014 - January, 2019. **(GPA : 7.1/10)** Thesis title: p-adic Numbers and the Local-Global Principle.
Minor	One-semester minor in **International Development Studies** at the University of Amsterdam, September, 2018 - January, 2019
Exchange	**International exchange** to *Pontificia Católica Universidad de Chile*. Santiago de Chile, August - December, 2016
CPE	Cambridge Proficiency Exam, 2013 **(Grade C)**
High school diploma	*Gymnasium* at *Het Amsterdams Lyceum*, 2007 - 2013. Courses: Physics, Chemistry, Mathematics (extra), Dutch, English (Fast Lane), Latin and Economics. **(GPA : 7.6/10)**

Work experience

Research Assistant	Researching Machine Learning and Evolutionary Computation methods at LASIGE **(Lisbon, February, 2021 - Ongoing)**.

Contact me for more information.

I participated in a 6-month research fellowship with Prof. Tiago Guerreiro at LASIGE. We worked on the personalisation of gait detection algorithms for people with a motor impairment by applying Transfer Learning to Deep Neural Networks. This collaboration resulted in a publication in Sensors (Q1). Here, I enjoyed the society-improving research application of medicine. After this first fellowship, I joined the team of Prof. Alcides Fonseca for my master's thesis, where I stayed after my studies. We research Grammar-Guided Genetic Programming, its interpretability benefits and its applications in various domains. Besides various publications, we developed a Python framework for interpretable machine learning, called Genetic Engine. My main interest is in the area of Explainable Artificial Intelligence (XAI).

Co-founder & Manager

Setting up a boulder gym in the heart of Lisbon **(Lisbon, May, 2023 - Ongoing)**.

Together with three partners, I work towards the opening of a boulder gym, navigating bureaucracy, funding and acquisition, while keeping the team together. Working in intense sprints within a young team is an incredible, educational journey.

Journalist

Journalism research project for *Global Voices* **(Remote, June, 2023 - Ongoing)**.

Working as a researcher for Global Voices. I was trained in the Civic Media Observatory methodology, after which I collaborated on two journalism projects regarding local narratives around a global issue. The first project concerned narratives around AI usage by governmental institutions in the Netherlands. My second project was on narratives around racism in Portugal.

Software Engineer & Data Scientist

Project Support Officer in the Research & Development team of Impact Institute **(Amsterdam, September, 2019 - September, 2020)**.

As a software engineer, I worked together in the Research and Development team to develop applications in **F#**, **Python** and **SQL**. As a data scientist, I developed mathematical models to analyze global impact flows and helped to develop and maintain the Global Impact Database in **Python** and **SQL**. Finally, I started and lead the company's WeCie (committee for the worker's rights and bonding).

Coordinator

Volunteer at BuurtBuik West **(Amsterdam, October, 2019 - September, 2020)**.

Software Engineer

Software engineer intern at Impact Institute **(Amsterdam, February - August, 2019)**.

As a software engineer intern I worked together in a team to develop applications in **F#**. We used of **SQL** to create and maintain our databases. Furthermore, I helped to develop models to analyze global impact flows. For this I have coded mainly in **Python**, but also in **Matlab** and **Anaplan**.

Bartender/Waiter

Bartender/waiter at *Brouwerij Troost* **(Amsterdam, September 2017 - June 2019)**

As employee at Troost I had the responsibility of closing and opening shop and training new employees. Furthermore, I gave tours around the brewery.

Tutor coordinator

High school tutor and coordinator at *OVER Huiswerkbegeleiding* **(Amsterdam, September, 2014 - January 2018)**.

Student Ambassador

Leader of the Creative Committee for the international office of the University of Amsterdam **(Amsterdam, February - August, 2017)**.

As the leader of the Creative Committee I had to lead 10 international students to make the UvA Exchange Express and compete in the Global Ingenuity Challenge. Furthermore, I was a spokesman for the university and spoke in front of large crowds several times.

Football Trainer

Volunteer at *Escuela de Fútbol CB* **(Santiago de Chile, August - December, 2016)**.

Cook

Cook and storage manager at *De Wasserette* **(Amsterdam, April, 2013 - August, 2014)**

Personal skills

Human Languages

Dutch

Native

English

I speak/write/read English **fluently**. With the Cambridge Proficiency Exam I obtained the C2 level.

Spanish	I speak/write/read Spanish **very well**. I took multiple Spanish courses during my life, as well as following classes in Spanish. The highest level I obtained is: superior (C1). I have experience with Spanish in a professional context.
Portuguese	I speak/write/read Portuguese **well**. The highest level I officially obtained is intermediate (B1), but I currently speak much better. I speak Portuguese in professional environments.
French	I speak French **fairly well** (B1).
Italian	I speak **some** Italian (A2).
Computer languages	
Python	I took courses in Python during my bachelor's and used it extensively throughout my professional life (1.5 years), personal life, Master of Data Science (2 years), and academic career (2.5 years, partly overlapping with master's).
git	I used GitHub throughout my studies (2 years) and academic career (2.5 years, partly overlapping studies). Furthermore, I used GitLab throughout my professional (1.5 years) and academic career (2 years).
SQL	I took courses in SQL during my bachelor's and used it extensively throughout my professional life (1.5 years). Furthermore, I worked with it during my Master of Data Science, and academic career.
F#	I used F# extensively throughout my professional career (1.5 years) and in my personal life.
Others	I am experienced in the use of Java, Latex, Excel and Anaplan. I have some experience with HTML, CSS, React, JavaScript, Matlab, R, Mathematica, bash, Azure, Neo4J and MongoDB.
Other skills	
Mindfulness	I have done boxing for 3 years, where I was taught mindfulness. Furthermore, I took mindfulness workshops at the University of Amsterdam. I take great care of my mental and physical well-being, for example by writing and doing yoga every day.

Academic achievements

Publications

2023	Ingelse, Leon, et al. *Comparing Individual Representations in Grammar-Guided Genetic Programming for Glucose Prediction in People with Diabetes.* Grammatical Evolution Workshop at GECCO, evolution 11.12 (2023): 17-26.
	Ingelse, Leon, and Fonseca, Alcides, (2023). *Domain-Aware Feature Learning with Grammar-Guided Genetic Programming.* EuroGP 2023 Proceedings. Springer Nature.
	de Franca, F. O., et al. *Interpretable Symbolic Regression for Data Science: Analysis of the 2022 Competition.* arXiv preprint arXiv:2304.01117 (2023).
2022	Ingelse, Leon, et al. (2022). *Personalised Gait Recognition for People with Neurological Conditions.* Sensors 22.11 (2022): 3980.
	Espada, G., et al. (2022). *Data types as a more ergonomic frontend for Grammar-Guided Genetic Programming.* ACM SIGPLAN GPCE Proceedings (pp. 86-94).
	Ingelse, Leon, et al. *Benchmarking Individual Representation in Grammar-Guided Genetic Programming.* EasyChair (2022): 7821.

Grants

2022, Nov - Present	Fellowship grant with Prof. Alcides Fonseca for my Research at LASIGE under the RAP project (Ref.[a] Ref. 1008.3 – 1 BI ED RAP)
2022, May - Oct	Fellowship grant with Prof. Alcides Fonseca for my Research at LASIGE under the CAMELOT project (Ref.[a] BI-MESTRANDO-CAMELOT-3)
2021, Sep - 2022, May	Fellowship grant with Prof. Alcides Fonseca for my master thesis at LASIGE (Ref.[a] 816 – PEI 4 BI-EM LASIGE)

2021, Feb - Aug | Fellowship grant with Prof. Tiago Guerreiro within the Food Parenting project at LASIGE (Ref[a] 562.3 –1BI EM FoodParenting)

Invited talks

Dec, 2021 | Seminar for the Master's of Data Science at the **University of Lisbon** on personalization of gait recognition on people with Parkinson's Disease. Invited by Prof. Tiago Guerreiro.

Nov, 2022 | Invited talk at the **Universidad Complutense de Madrid** on the differences between Grammar-Guided Genetic Programming representations. Invited by Prof. José Ignacio Hidalgo.

Additional information

Abroad

Lisbon | At the age of 25, during the covid pandemic, I moved to Lisbon, Portugal. I am currently researching explainable machine learning methods at LASIGE and the Faculty of Sciences of the University of Lisbon.

Santiago de Chile | At the age of 21, I moved to Santiago, Chile, for a 6-months exchange. In Chile, I did a minor in Spanish literature.

South America | At the age of 18, right after high school, I travelled through South America for 6 months. I started studying Spanish in Quito, Ecuador, and then moved south through Peru, Bolivia, Argentina, Paraguay, Brazil and Uruguay. In La Paz, I worked as a waiter in a restaurant.

Turkey | At the age of 10, my family and I moved to Ankara, Turkey for one and a half years. In Ankara I attended Bilkent International School.

Football | I played football on a serious level in the second team of AVV Swift from 2015 to 2020. We practiced twice a week and had games once a week.

Personal interests | Ethical AI (Policy and Application), Interpretability in Machine Learning, Evolutionary Algorithms, Latin America, Mathematics, Programming, Languages, Football, Music, Dancing and Reading.

Contact me for more information.