



Personal information

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Date of Birth

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Leon Ingelse

9th of May, 1995

Education

Post-master's degree

Post-master's degree in **Methods and Techniques in Scientific Research** at the University of Lisbon, September, 2022 - Present.

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.

Exchange

International exchange to *Pontificia Católica Universidad de Chile*. Santiago de Chile, August - December, 2016

Minor

One-semester minor in **International Development Studies** at the University of Amsterdam, September, 2018 - January, 2019

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)**

Publications

Ingelse, Leon, and Fonseca, Alcides, (2023). *Domain-Aware Feature Learning with Grammar-Guided Genetic Programming*. EuroGP 2023 Proceedings. Springer Nature.

Ingelse, Leon, et al. (2022). *Personalised Gait Recognition for People with Neurological Conditions*. Sensors 22.11 (2022): 3980.

Espada, G., Ingelse, L., 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.

de Franca, F. O., et al. *Interpretable Symbolic Regression for Data Science: Analysis of the 2022 Competition*. arXiv preprint arXiv:2304.01117 (2023).

Grants

2022, Nov - Present	Fellowship grant with 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 Alcides Fonseca for my Research at LASIGE under the CAMELOT project (Ref. ^a BI-MESTRANDO-CAMELOT-3)
2021, Sep - 2022, May	Fellowship grant with Alcides Fonseca for my master thesis at LASIGE (Ref. ^a 816 – PEI 4 BI-EM LASIGE)
2021, Feb - Aug	Fellowship grant with Tiago Guerreiro within the Food Parenting project at LASIGE (Ref. ^a 562.3 –1BI EM FoodParenting)

Work experience

Research Assistant	<p>Researching Machine Learning and Evolutionary Computation methods at LASIGE (Lisbon, February, 2021 - Present).</p> <p>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 <i>Sensors</i> (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).</p>
Software Engineer & Data Scientist	<p>Project Support Officer in the Research & Development team of Impact Institute (Amsterdam, September, 2019 - September, 2020).</p> <p>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 Global Impact Database in Python and SQL. Finally, I started and lead the company's WeCie (committee for the worker's rights and bonding).</p>
Coordinator	Volunteer at BuurtBuik West (Amsterdam, October, 2019 - September, 2020).
Software Engineer	<p>Software engineer intern at Impact Institute (Amsterdam, February - August, 2019).</p> <p>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.</p>
Student Ambassador	<p>Leader of the Creative Committee for the international office of the University of Amsterdam (Amsterdam, February - August, 2017).</p> <p>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.</p>
Tutor coordinator	High school tutor and coordinator at <i>OVER Huiswerkbegeleiding</i> (Amsterdam, September, 2014 - January 2018).
Football Trainer	Volunteer at <i>Escuela de Fútbol Clotario Blest</i> (Santiago, August - December, 2016).
Bartender/Waiter	<p>Bartender/waiter at <i>Brouwerij Troost</i> (Amsterdam, September 2017 - June 2019)</p> <p>As employee at Troost I had the responsibility of closing and opening shop and training new employees. Furthermore, I gave tours around the brewery.</p>
Cook	Cook and storage manager at <i>De Wasserette</i> (Amsterdam, April, 2013 - August, 2014)

Personal skills and competences

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, overlapping with master's).
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.
Other languages	I took courses in the use of Latex, Java, Matlab, R, Mathematica, Excel and Anaplan.

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 courses during my life, as well as following classes in Spanish. The highest level I obtained is: superior (C1).
Portuguese	I speak Portuguese fairly well . The highest level I obtained is: intermediate (B1).
French	I speak French fairly well .

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. Currently, I do yoga everyday to stay mentally and physically healthy.
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Additional information

Abroad

Lisbon	At the age of 25, during the covid pandemic, I moved to Lisbon, Portugal. I am currently finishing a Research Master of Data Science at 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.