

Luis Valero

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<https://lluisvalerodelai.github.io/website/> |

EDUCATION

Bachelor of Science, Data Science & Artificial Intelligence <i>Leiden University</i>	2024 – 2027 GPA: 8.94/10
International Baccalaureate <i>International School of Helsinki</i>	2022 – 2024 <i>Relevant Coursework:</i> Mathematics Analysis & Approaches (HL), Physics (HL)

EXPERIENCE

Teaching Assistant <i>Leiden University</i>	Oct 2025 – Present
<ul style="list-style-type: none">• Data Structures & Algorithms (Feb 2026 – Jun 2026, Ongoing)• Probability Theory for Computer Scientists (Mar 2026 – Jun 2026, Ongoing)• Fundamentals of Programming (Oct 2025 – Jan 2026)	
Research Assistant <i>Leiden University</i>	Mar 2025 – Sep 2025
<ul style="list-style-type: none">• Conducted data preparation & analysis under Dr. M.L. Vives Moya• Performed sentiment analysis on LLMs with induced psychopathologies	

Research Intern <i>UN University – WIDER</i>	2022
<ul style="list-style-type: none">• Developed automated data analysis pipeline for PhD thesis, reducing week-long workload to 3-hour process• Analyzed & cleaned Global Competitiveness Index dataset	

PROJECTS

OtaOS – Custom Operating System

- Built fully functional OS with GRUB bootloader, VGA & keyboard drivers, multi-task scheduling
- Implemented custom PCI device detection similar to Linux's lspci command

START Compiler – x86 Compiler

- Open-source x86 compiler for educational programming language START used at Leiden University (unofficial)

Minispark – Miniature Apache Spark Clone

- Miniature Apache Spark clone for Raspberry Pi Cluster

Cell Segmentation Toolkit

- Voice-controlled cell segmentation tool for AI & Robotics challenge at Leiden University

Other Projects

- **DQNKit**: Collection of DQN algorithms with various replay buffer implementations
- **8-bit CPU**: Programmable CPU designed in Logisim with custom instruction set architecture
- **Phase Space Explorer**: Fractal phase space exploration of discrete dynamical systems

SKILLS

Languages: English, Spanish, Catalan (fluent); Finnish, French, Dutch (conversational)

Technical: Python, C, C++, Scala 3, Data Analysis