

Luis Valero

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EDUCATION

Bachelor of Science, Data Science & Artificial Intelligence	2024 – 2027
<i>Leiden University</i> GPA: 8.94/10 <i>Relevant Coursework:</i> Reinforcement Learning, Neural Computing, Data Structures & Algorithms, Databases, Math Structures in CS (topology, manifolds, category theory), High Performance Computing	
International Baccalaureate	2022 – 2024
<i>International School of Helsinki</i> <i>Relevant Coursework:</i> Mathematics Analysis & Approaches (HL), Physics (HL)	

EXPERIENCE

Teaching Assistant	Oct 2025 – Present
<i>Leiden University</i>	
• Teaching assistant for Data Structures & Algorithms, Probability Theory for CS, and Fundamentals of Programming	
Research Assistant	Mar 2025 – Sep 2025
<i>Leiden University</i>	
• Conducted data preparation & analysis under Dr. M.L. Vives Moya	
• Performed sentiment analysis on LLMs with induced psychopathologies	
Research Intern	2022
<i>UN University – WIDER</i>	
• 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

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++, x86 Assembly, Reinforcement Learning, Computer Vision, OS Development