

MS student of Artificial Intelligence with industry and research experience. Passionate and driven by current problems in AI and Computer Science. Interested in research related to geometrically grounded deep learning (TDL, GDL), machine learning theory and applications in computational linguistics.

EXPERIENCE

Vrije Universiteit Amsterdam Amsterdam, Netherlands <i>Research Assistant</i>	On-site Oct 2023 - Jun 2023
<ul style="list-style-type: none">Research in computational methods for extractive text summarisation VU Amsterdam under the supervision of dr Fokkens and dr Sommerauer	
<i>Research Intern</i>	On-site Jul 2024 - Present
<ul style="list-style-type: none">Intersection of computational linguistic and computational geometry at VU Amsterdam under the supervision of dr Fokkens and dr Sommerauer	
Airnguru Santiago, Chile <i>Backend Developer</i>	Remote Jun 2022 - Jul 2023
<ul style="list-style-type: none">Optimized a big data-related process for managing airline fares and reduced the execution time by 10%Developed a metric extraction system from CloudWatch to enable metrics to be stored and visualized through BigQueryOptimized the calculation of airplane routes and reduced execution time by 40%	
Universidad de Ingenieria y Tecnologia Lima, Peru <i>Research Assistant</i>	On-site Mar 2019 - Dec 2023
<ul style="list-style-type: none">Conducting research in relation to computer architecture, photonics and operating systems in the Computing Systems Research Group under supervision of dr Jorge Gonzalez	
Universidad de Ingenieria y Tecnologia Lima, Peru <i>Teaching Assitant - Operating Systems</i>	In Person Mar 2019 - Dec 2020
<ul style="list-style-type: none">Assessed student assignments to check quality and completeness before submission for gradingAssisted and mentored students in groups of up to 20 by reviewing lesson teachings and going over previous examsRecorded grades for coursework and tests in an online reporting systemAssisted lead teachers with lesson plan creation and materials development	

PUBLICATIONS AND POSTERS

- M. G. Palma, J. Gonzalez, **M. Carrasco**, R. Rubio-Noriega, K. Bergman and R. Azevedo, "Inter-Node Message Passing Through Optical Reconfigurable Memory Channel," in IEEE Access, vol. 12, pp. 83057-83071, 2024, doi: 10.1109/ACCESS.2024.3412878,
- M. Carrasco**, A. Berentzen and A. Garcia "Applications of TopoX to Topological Deep Learning," in Geometric-Grounded Representation Learning and Generative Modelling @ ICML 2024, url: <https://gram-blogposts.github.io/blog/2024/smpn/>,

EDUCATION

University of Amsterdam <i>MS student in Artificial Intelligence</i>	Amsterdam, Netherlands
<ul style="list-style-type: none">Relevant courses: Deep Learning 2	
Vrije Universiteit Amsterdam <i>MS student in Artificial Intelligence</i>	Amsterdam, Netherlands
<ul style="list-style-type: none">Relevant courses: Natural Language Processing, Deep Learning	
Universidad de Ingenieria y Tecnologia <i>BS in Computer Science</i>	Lima, Peru
<ul style="list-style-type: none">Relevant courses: Competitive programming , Advanced Data Structures, Analysis and Design of Algorithms	

AWARDS

Winner in the TDL Challenge at ICML 2024 - Great Contributor @ ICML 2024 <i>Awarded for being a great contributor to the challenge with 4 submissions</i>	Viena, Austria July 2024
Grant to attend ICML 2024 from the University of Amsterdam <i>500 EUR grant to attend the International Conference on Machine Learning 2024 to present a poster</i>	Amsterdam, Netherlands July 2024
Top 100 recognition @ IEEE-Xtreme <i>Placed on place 49 of over thousands of teams in a 24-hour competitive programming competition</i>	Lima, Peru Oct 2019

VOLUNTEERING AND SOCIETIES

Open Day @ Universidad de Ingenieria y Tecnologia

Assitant: Supporting workshops in career fair for Computer Science

Lima, Peru

Mar 2019

Presenter: Presentation of an Arts and Technology project related to Shipibo-Conibo imagery “Convirtiendo Imágenes a Sonidos”

Mar 2020

IEEE - Computer Society @ Universidad de Ingenieria y Tecnologia

Lima, Peru

Treasurer: Founding member. Gave workshops on data structures used by git, statistics and arranged talks / paper reviews

2019

Competitive Programming Club (CPC) @ Universidad de Ingenieria y Tecnologia

Lima, Peru

Member: Top 100 in IEEE-Xtreme 2019, competed in regional competitions and trained thoroughly

2019-2021

TECHNICAL SKILLS

- Python, Pandas, Scipy, Seaborn, Tensorflow, PyTorch, Django, FastAPI, Flask, SQL, C++/C, GIT, Latex, MongoDB, AWS, GCP, DataWarehousing, Docker, Kubernetes, MPI/OpenMPI Advanced

LANGUAGES

- **Spanish** Native speaker
- **English** C2