







Luis Lauro Aizpuru-Vargas, M.Sc.

✉ A01195658@tec.mx  Luis Lauro Aizpuru-Vargas
 <https://luisaizpuru-vargas.github.io/>

Employment History


- 2019 – 2020  **Research Assistant**
Jülich Supercomputing Centre (JSC)
Forschungszentrum Jülich
Jülich, Germany
- 2019  **Teaching Assistant**
Argelander-Institut für Astronomie (AlfA)
Universität Bonn
Bonn, Germany

Education

- 2024 – 2028  Ph.D. Computer Science (Bioinformatics Track)
Tecnológico de Monterrey
Monterrey, Mexico
Preliminary Thesis title: “A Computational Framework for Modeling the Complexity of Genetic Architecture: From Polygenic to Omnigenic Paradigms to Assess Genetic Risk Prediction in the Mexican Population”
- 2021 – 2023  M.Sc. Medical Physics
Pontificia Universidad Católica de Chile
Santiago, Chile
Thesis title: “A study of the vascular effect of photodynamic therapy with oxygen variation on chorioallantoic membrane model”
- 2017 – 2020  M.Sc. Astrophysics
Rheinische Friedrich-Wilhelms-Universität Bonn
Bonn, Germany
Thesis title: “Investigation on gravitational star-disk encounters producing ‘Oumuamua and Borisov-like Interstellar Objects”.
- 2012 – 2017  B.Sc. Astrophysics
University of Alberta
Edmonton, Canada

Research Publications

Journal Articles

-  1 S. Pfalzner, **Aizpuru Vargas, Luis L.**, A. Bhandare, and D. Veras, “Significant interstellar object production by close stellar flybys,” *Astronomy & Astrophysics*, vol. 651, 2021.

Skills

Languages	<div><div></div>Spanish (Native Fluency)</div> <div><div></div>English (Very High Fluency)</div> <div><div></div>Portuguese (High Fluency)</div> <div><div></div>German (Moderate Fluency)</div>
Coding	<div><div></div>Python, R, SQL, \LaTeX</div>
Technical Skills	<div><div></div>Advanced Mathematical Proficiency</div> <div><div></div>Data Analysis</div> <div><div></div>Scientific Modeling</div>
Transferable Skills	<div><div></div>Problem-Solving</div> <div><div></div>Research and Critical Thinking</div> <div><div></div>Attention to Detail</div> <div><div></div>Communication</div>

Miscellaneous Experience

Awards and Achievements

2024-2028	<div><div></div>PhD Stipend SECIHTI (Secretariat of Science, Humanities, Technology and Innovation) Mexico</div>
2021-2023	<div><div></div>Graduate Studies Academic Scholarship Pontificia Universidad Católica de Chile</div>
2019-2020	<div><div></div>Research Stipend Forschungszentrum Jülich</div>
2012-2015	<div><div></div>Undergraduate Studies Academic Scholarship University of Alberta</div>

Certifications

2023-2024	<div><div></div>Data Science Bootcamp Awarded by Universidad del Valle de México.</div> <div><div></div>Clinical SBRT and Radiosurgery Awarded by Elekta Foundation and RCC.</div>
2023	<div><div></div>Advanced Radiotherapy and Protontherapy Awarded by NHS England.</div> <div><div></div>Certificate in Radiological Security Awarded by COFEPRIS.</div>
2022	<div><div></div>Scientific Workshop on Emerging Techniques in Radiotherapy Awarded by DKFZ.</div>
2021	<div><div></div>Workshop on Computational Methods in Radiotherapy Awarded by DKFZ.</div>

References

Referee 1 Prof. Víctor Treviño-Alvarado School of Medicine Tecnológico de Monterrey vtrevino@tec.mx	Referee 2 Prof. Hilde Harb-Buzzá Institute of Physics PUC Chile hilde.buzza@uc.cl	Referee 3 Prof. Susanne Pfalzner Jülich Supercomputing Centre Forschungszentrum Jülich s.pfalzner@fz-juelich.de
--	--	--