

Simón Pedro González

Curriculum Vitae

CONTACT INFORMATION

Email Address: simon.pedro.g@gmail.com

EDUCATIONAL EXPERIENCE

- August 2024 - present **University of Utah**, Salt Lake City, Utah.
Master of Science in Artificial Intelligence.
- March 2016 - December 2022 **National University of San Juan**, San Juan, Argentina.
Bachelor of Science in Computer Science. 5-year program.
GPA: 9.97 out of 10.
Thesis: *Development of Scientific Software to Calculate Membership Probabilities in Star Clusters.*
- March 2016 - July 2019 **National University of San Juan**, San Juan, Argentina.
University Level Programming Technician. 3-year program.
GPA: 10 out of 10.

ADDITIONAL COURSEWORK

- July 2021 **School of Computer Science 2021**, University of Buenos Aires, Buenos Aires, Argentina.
Course: *Machine Learning with Limited Data.* 15-hour program.
- August 2020 - December 2020 **National University of Córdoba**, Córdoba, Argentina.
Course: *Software design for scientific computing.* 60-hour program.
- July 2019 **School of Computer Science 2019**, University of Buenos Aires, Buenos Aires, Argentina. Courses:
- *Probabilistic Classifiers in Machine Learning.* 15-hour program.
 - *Quantum Computing and Digital Physics.* 15-hour program.
 - *Development and Automated Testing of RESTful APIs.* 15-hour program.

HONORS AND AWARDS

- October 2023 **National University of San Juan Gold Medal and Diploma of Honor** for achieving the highest GPA in the 2022-2023 graduating class.
- July 2023 **Fulbright scholarship** to pursue a master's degree in the United States starting fall 2024.
- December 2020 - December 2021 **National University of San Juan Internal Research and Development Fellowship** (1-Year Stipend).
Research Project: *Analysis and Implementation of Improvements in Star Cluster Detection and Membership Estimation Algorithms.*
- October 2020 **National University of San Juan Flag Bearer Academic Honor** for achieving the highest GPA among final-year students.
- November 2019 **Santander Río Academic Merit Award** for achieving a top GPA among Argentine university students in 2019.

PROFESSIONAL EXPERIENCE

BridgeNext (formerly Folcode), San Juan, Argentina.
Digital Consultancy and Web-based Digital Product Factory.

*August 2020 -
present*

Technical Leader and Software Architect

- Led client meetings, developed prototypes, delivered technical demonstrations, and planned and estimated projects.
- Architected and led the development of:
 - A multitenant e-learning platform.
 - An interactive STEM-focused learning ecosystem.
 - A governmental web platform to encourage sustainable practices in the tourism industry.
- Engaged in programming and DevOps responsibilities.
- Mentored colleagues.

*May 2021 -
July 2022*

Staff Engineer

- Led performance reviews and crafted professional development plans.
- Led knowledge-sharing sessions.
- Conducted technical interviews.
- Proposed, prioritized, and pursued company-wide OKRs related to defining roles, processes, technologies, and best practices for web application development.

*December 2019 -
August 2020*

Back-End Developer.

Developed, deployed, and maintained web applications.

RESEARCH EXPERIENCE

Institute of Informatics, School of Exact, Physical, and Natural Sciences, National University of San Juan (UNSJ), San Juan, Argentina.

*March 2019 -
present*

Research Assistant

- Designed, developed, documented, and maintained open-source scientific software for star cluster data analysis.
- Analyzed data from local educational and quality-of-life surveys using unsupervised learning techniques.

TEACHING EXPERIENCE

School of Exact, Physical, and Natural Sciences, National University of San Juan (UNSJ), San Juan, Argentina.

*November 2021 -
December 2021*

Teaching assistant in *Methods for Data Analysis* postgraduate course.

- Taught Unsupervised Machine Learning methods lessons.
- Responded to student inquiries and guided data analysis projects.

*January 2018 -
January 2019*

Teaching assistant in *Basic Mathematics* course.

- Conducted tutorial classes and drop-in sessions.

SELECTED PUBLICATIONS AND PRESENTATIONS

- Alejo, A. D. & González, J. F., González, S. P. (2024). *Primeros resultados del estudio observacional de estrellas masivas y centrales en cúmulos abiertos*. Boletín de la Asociación Argentina de Astronomía, 65, 102–105.
- González, S. P., Herrera M. & Ruiz, S. (2023). *SCLUDAM: Software for Astrometric Membership Probability Calculation in Star Clusters*. Revista de Matemática Aplicada, Computacional e Industrial MACI, 9. ISSN 2314-3282. Presented at:
 - IX Congreso de Matemática Aplicada, Computacional e Industrial, May 2023. Organized by the Argentine Association of Applied, Computational, and Industrial Mathematics. Santa Fé, Argentina.
 - XII Friends of Friends Meeting, April 2023. Organized by the Astronomical Observatory of Córdoba. Córdoba, Argentina.
- González, S. P., Herrera M. & Romagnano, M. (2021). *Quality of Life Analysis of San Juan's Population Applying Data Science*. Anales del Simposio Argentino de Grandes Datos, 50, 108 - 118. ISSN 2683-8966. Presented at:
 - Simposio Argentino de Grandes Datos, Jornadas Argentinas de Informática e Investigación Operativa, October 2021. Organized by the Argentine Informatics Society. Virtual Conference.
- Herrera, M., González, S. P. & Aballay, L. (2020). *Analysis of National University of San Juan Graduates Using Data Science Techniques*. Cuaderno de Resúmenes de las Jornadas Latinoamericanas de Ingreso y Permanencia en Carreras Científico-Tecnológicas 2020, 7, 58-65. ISBN 978-987-4998-65-1. Presented at:
 - Jornadas Latinoamericanas de Ingreso y Permanencia en Carreras Científico-Tecnológicas, November 2020. Organized by the National Technological University. Tucumán, Argentina.
- Alejo, A. D., González, J. F. & González, S. P. (2020). *Stellar cluster membership study using Gaia DR2*. Cuaderno de Resúmenes de la Asociación Argentina de Astronomía, 62, 64-65.

SKILLS

Languages: Spanish (native). English (advanced):

- TOEFL iBT, 2023 (Score 111).
- Certificate in Advanced English, University of Cambridge, 2019 (Grade A, C2 Level).

Software:

- Software development team management and agile practices.
- Scientific Software Development:
 - Python (advanced).
 - R, C++, CUDA (intermediate).
 - Test-driven Development, software documentation (advanced).
- Web Application Development:
 - Java, Spring Boot, Spring microservices, TypeScript, NodeJS (advanced).
 - PHP, Laravel, HTML, CSS, React (intermediate).
- Development Tools: Git, GitHub, Jira, Bitbucket, VSCode, IntelliJ, Swagger.
- Databases: MySQL, MariaDB, MongoDB.
- Deployment and CI/CD tools: Docker, Docker Compose, Kubernetes, Jenkins, AWS ecosystem.