JAVIER SALES-ORTIZ

Based in Edmonton, AB ◇ salesort@ualberta.ca ◇ (780) 935-5102

github.com/j27avier ◇ j27avier.github.io ◇ linkedin.com/in/javier-sales-ortiz

EDUCATION

M.Sc. Computing Science (Thesis based) *Sep. 2021 - Present*
University of Alberta, Expected graduation: Apr. 2024 *Edmonton, Canada*
Research Areas: Machine Learning and optimization for the electrical grid

B.Sc. Engineering in Mechatronics and Production *Aug. 2015 - May. 2020*
Iberoamerican University *Mexico City, Mexico*
Academic Excellence Award – Highest GPA of graduating class.

TECHNICAL SKILLS

Programming	Python, MATLAB, C/C++, Bash, SQL, Javascript/HTML/CSS
Python Libraries	PyTorch, Tensorflow, Sci-kit Learn, Pandas, Matplotlib, Cvxpy, Flask
Databases	MySQL, SQLite, PySpark, SAS
Cloud	Amazon Web Services (AWS), MS Azure, DataBricks
Tools	Linux terminal, Git/GitHub, BitBucket, SSH, Jupyter Notebooks, MLflow

WORK EXPERIENCE

Graduate Research Assistant May 2023 - Present
University of Alberta *Edmonton, AB*
- Conducted original research published in peer-reviewed international conference (see publications below).
- Focused on Machine Learning and optimization for increasing the sustainability of the electrical grid.
- Developed code and designed Reinforcement Learning agents, simulations and experiments to showcase the impact of research ideas (`Python`, `PyTorch`, `Cvxpy`).
- Refined communication skills by presenting findings to audiences of experts in conferences and workshops.

AI Career Acceleration Participant Various projects, 2022-2023
Alberta Machine Intelligence Institute (Amii) *Edmonton, Alberta*
- Contributed 250+ hours of work-integrated learning for creating AI online courses.
- Crafted lessons on Neural Networks, interacting with LLMs via APIs, MLOps, and deploying solutions to the cloud (`Tensorflow`, `Python`, `AWS`, `MLflow`).
- Supervised other participants in content creation, ensuring alignment to overall project goals.

Graduate Teaching Assistant Sep. 2021 - Present
University of Alberta: Numerical Methods (`MATLAB`), *Tangible Computing II* (`C++`) *Edmonton, AB*
- Enhanced communication capabilites by crafting and delivering seminars to groups of up to 70 students.
- Demonstrated teamwork skills by designing course materials and marking tools (`Bash`) with fellow TAs.
- Provided one-on-one mentoring to students in preparation for course exams and assignments.

Junior Data Scientist Nov. 2020 - Jul. 2021
Intelimetrica: Data consulting company specializing in supply chain optimization *Mexico City*
- Expanded the functionality of commercial vehicle monitoring platform by developing algorithms to detect operation-critical events (`Python`, `PySpark`).
- Automated data quality reports for verifying the integrity of a Data Lake (`MS Azure`, `SQL`)
- Contributed to large existing codebases using version control software (`Git`, `BitBucket`).

Junior Consultant, Data Science Feb. 2020 - Nov. 2020
Management Solutions: International technology and finance consulting company *Mexico City*
- Evaluated performance and verified the implementation of high impact prediction and decision models used for personalized credit card offerings for a multinational Spanish banking firm (`SAS`).

Database Volunteer Internship Summer 2019

Yomol A'tel *Chilón, Chiapas, Mexico*

- Volunteered at small coffee cooperative supporting local indigenous communities in southeast Mexico.
- Created a comprehensive database system, consolidating organizational data (`MS Access`).
- Generated visualizations and key performance indicators to aid the executives' decision making.

Undergraduate Research Assistant Jun. 2016 - Dec. 2019

Iberoamerican University, Institute of Applied Research and Tech (InIAT) *Mexico City*

- Authored and presented a robotics and computer vision research paper an international IEEE conference (see publications below).
- Programmed embedded systems on mobile robots, automated result recording, constructed physical prototypes (`C`, `MATLAB`, `Python`).

PUBLICATIONS

- Saidur Rahman*; <u>Javier Sales-Ortiz</u>* ; Omid Ardakanian, "Making a Virtual Power Plant out of Privately Owned Electric Vehicles: From Contract Design to Scheduling", ACM International Conference on Future Energy Systems (e-Energy '23). Association for Computing Machinery, New York, NY, doi: 10.1145/3575813.3597353

- <u>J. C. Sales-Ortiz</u>; J. F. Ciprián-Sánchez; E. G. Hernandez-Martinez; *et. al.*, "Leader-follower Strategy based on Distance and Heading Angles using Local Vision," 2019 IEEE 62nd International Midwest Symposium on Circuits and Systems (MWSCAS), Dallas, TX, USA, 2019, pp. 1097-1100, doi: 10.1109/ MWSCAS.2019.8885046