




ANDRES ZEPEDA PEREZ

Junior Data Scientist | Bsc Hon. CompSci, Math, and DataSci

USA P. Resident | CAN Citizen
AndresZepeda137@gmail.com
+1 (469) 798 5449 |  Research
 Andres Zepeda |  TheAMIZZguy

WORK EXPERIENCE

JUNIOR DATA SCIENTIST *UBC Data Science Institute*

Fall 2023 — Present

- Created a segmentation model for varied clinical reports, improving data processing accuracy by 40%
- Implemented cross-validation and ensemble methods for use in cancer prediction in Canadian hospitals
- Formulated visualizations and presentations, enhancing stakeholder understanding and meeting length
- Co-authored several NLP research papers using BERT for relapse predictability, reducing workload by 90%

TEACHING ASSISTANT AND TUTOR *University of British Columbia*

Summer 2023 — Present

- Provided tutoring and teaching for upper level courses in *Algorithm Design*, leading to improved grades
- Received exemplary reviews from students and professors for teaching pedagogy and grading comment quality

TECHNOLOGY TRANSFORMATION ANALYST *Citigroup*

Summer 2023

- Validated data uploads to Ruby Applications and documented results, ensuring smooth program operation
- Completed program Consent Orders from interdisciplinary teams, presenting results to stakeholders

VISITING RESEARCH FELLOW *Technological Institute of Monterrey*

Summer 2022

- Researched a new application for search algorithms as hyper-heuristics on combinatorial optimization problems
 - Modified the A* and MCTS algorithms as hyper-heuristics in a graph space to solve the firefighter Problem
- Achieved ICUR Conference acceptance and presented methodology at a graduate level AI course

JUNIOR SOFTWARE DEVELOPER *Exertus Consulting Group*

Summer 2021

- Developed a map overlay for visual performance tracking of shipments, enhancing real-time monitoring
- Boosted productivity by automating stakeholder notifications of shipments through a WhatsApp system
- Designed and implemented a Route Assignment Algorithm, reducing time driving without a shipment by 33%

PROJECTS AND COMPETITIONS

MONTE CARLO TREE SEARCH AND MINIMAX HYBRID AIs *Python Research Project*

Spring 2019 — Spring 2020

- Created a hybrid MCTS and Minimax with Alpha-Beta pruning algorithm, outperforming both in games
- Research results aligned with similar hybrid approaches and could be generalized for search spaces

CORRELATION ONE TERMINAL COMPETITION (WITH CITADEL) *Python*

2022 (2x) and 2023 (2x)

- Placed in Top-5 ELO for AI algorithm competition between top universities with \$15k in prizes

MACHINE LEARNING FOR DRONE TEAM *Python*

Fall 2021

- Built an OCR system to identify letters from 100ft away while noting locations on map for competition points
- Maintained autonomous drone movement and guidance system in exploration stages for target identification

DISCORD BOT WITH API AND FILE BACKEND *JavaScript and Python*

Winter 2023

- Implemented asynchronous code techniques to RESTfully import and modify file data from multiple users at once
- Enabled an interactable Discord front-end with detailed bot communication, creating a better user experience

STOCK PRICE TREND ANALYSIS *R Programming Language*

Fall 2022

- Modelled correlations between silicon supplier stock prices and inventory to future tech producer stock prices
- Utilized regression models, large feature selection, and discussed time series use to match industry results

EDUCATION

BSc IN HONOURS COMPUTER SCIENCE AND MATHEMATICS *BSc Minor in Data Science*

Expected May 2025

- University of British Columbia — 3.98/4.33 cGPA
- VP Internal of the UBC Quantum Computing Club | Member of Software Team in Unmanned Aerial Systems Club
- Courses: Adv. Algorithm Design | Artificial Intelligence | TCS | Visualization | NLP | Graph Theory | Real Analysis

SKILLS

PROGRAMMING LANGUAGES	Experienced: Python Java C# R Familiar: Arduino C/C++ JavaScript Julia
SOFTWARE DEVELOPMENT	Version Control Agile PowerBI Docker Excel and Sheets Automation Git
FRAMEWORKS & LIBRARIES	Jupyter Scikit-learn Numpy Pandas Transformers DotNET Qiskit OCR \LaTeX 2 _ε
COURSE CERTIFICATES	Machine Learning Data Science Deep Learning Quantum Computing Algorithms