Ramírez López, Almudena Zhou

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As a Data Scientist, I specialize in designing and implementing systems and tools for problem development and research, utilizing statistical analysis to resolve and gain insights from complex challenges. With a multidisciplinary programming background, I am proficient in various areas of development and machine learning. My passion for projects is matched by my excellent communication skills, enabling effective collaboration with diverse teams. One of my biggest strengths is my unwavering commitment to continual learning and adaptability, coupled with a proactive approach.

My professional aspirations revolve around furthering my growth in a dynamic environment, particularly within the modeling and development field. Additionally, I am keen to explore opportunities in the business domain, seeking to contribute to a balanced team where knowledge-sharing and growth are valued. I am eager to take on new challenges and expand my expertise while making a meaningful impact.

| PROFESSIONAL EXPERIENCE

Data Scientist/AI Developer at New Horizon Technologies. 07/2021 - Present
Tools: Python, Docker, SQL, Keras, TensorFlow

- Developed proprietary machine learning models (random forest, xgboost, reinforcement learning, ensemble models) for portfolio optimization and trading strategies. Implemented data cleaning techniques and validation methods for financial time series. Model development and deployment
- Created testing tools, reports, and optimization frameworks (optuna). Resolved bugs, performed code cleaning, and optimized code efficiency (cython, pandas, and numpy vectorization).
- Collaborated with team lead on decision-making regarding portfolio priorities, strategy acceptance, leverage, and strategy weights.
- Responsible for integrating and maintaining team models in production.
- Monitored and tested model overfitting and drift in production.
- Managed code quality, ensuring compliance with company standards. Resolved issues and controlled project workflow.
- Git master: oversaw deployments and approved code in each project phase.
- Provided development support to the systems team.

| EDUCATION

Data Glacier Data Science Virtual internship. 05/2021 – 09/2021.
Tools: Python, Git, Docker, Flask, Pandas, numpy, matplotlib, keras, sklearn
- Business data processing and analysis
- Model development and deployment
- Data presentation to non-technical audience

UNED- Post Graduate Master in Big Data and Data Science applied to Business and Economics. *60 credits.* 01/2021 – 12/2021
- **Core Modules:** Big Data Tools, Multivariate Data Analysis, Text Mining, Time Series Analysis, Web Mining. Big Data in the Insurance Sector, Time Series.
- **Master's Thesis:** Steam Game Recommendation System. Modular system that, based on three types of customers, establishes heuristics for selecting different models for game prediction. Models used: content-based filtering, collaborative filtering, gmf, neumf, matrix factorization, cMSE.

BME Institute- MSc in Artificial Intelligence applied to Financial Markets 10/2019 –04/2021
- **Core Modules:** Financial Products, Algorithmic (best execution, genetic, bee colony optimization), ML, CNN, RNN, Generative, Adversarial, Reinforced Learning, Transfer Learning, NLP, Blockchain, Quantum computing, Big Data Platforms: AWS, Google, Azure.
- **Final Year Project:** Asset Allocation Model in USD applying AI: ML. CNN, RNN. Encoder for dimension reduction, genetic algorithm. Personalized loss function, cross validation and backtesting evaluation.

UNIVERSIDAD COMPLUTENSE MADRID - Graduated in Physics. 09/2015-07/2019

| SKILLS

- Python. Daily used
- SQL. Daily used
- Jenkins. Daily used as user
- Docker. Daily used as user
- AWS. Sporadically used
- Linux. Sporadically used

| CERTIFICATION

- Security Certificate in ECDL, MTA
- Microinformatic Systems and Networks Course

| LANGUAGES

- Spanish. Native.
- English C1 Certified
- Japanese, Beginner.
- Chinese. Beginner.

| HOBBIES

- Music. Professional 5th grade
- Videogames developer
- Web competitions: Google Hash Code, Codechef