

BORIS EMAKAM GARCIAL

ML / QUANT RESEARCH & DATA SYSTEMS

Regina, SK | 306-501-8017 | borisemakam@gmail.com

Targeted portfolio: datascientistandai.github.io/research.html

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PROFESSIONAL PROFILE

Independent machine-learning and data-systems researcher focused on time-series modeling, trading infrastructure, continual learning, and reproducible evaluation. Builds end-to-end research systems that connect data integrity, model architecture, leakage control, regime analysis, transaction costs, and failure-mode reporting. Combines PyTorch and classical ML work with production-minded Python, DuckDB, Django, validation, and documentation.

TECHNICAL CAPABILITIES

Machine learning: PyTorch, LightGBM, Transformers, reinforcement learning, continual learning, neural networks, ensemble methods, classification analysis

Time-series and quant: FX data pipelines, quantile rollout forecasting, regime analysis, barrier simulation, transaction-cost evaluation, time-aware validation

Data systems: Python, pandas, DuckDB, SQL, point-in-time correctness, snapshot construction, schema and coverage checks, replay parity

Research quality: Leakage controls, reproducible experiments, ablation and sanity checks, benchmark evaluation, failure-mode analysis, honest negative-result reporting

Software foundation: Django, REST/API integration, Git/GitHub, Linux, Bash, MySQL, Azure Document Intelligence, technical documentation

PROFESSIONAL EXPERIENCE

Software Engineering Intern | MTN Cameroon

Jul 2025 - Sep 2025

Cameroon

- Built a Django-based document-intelligence workflow combining structured requirements, automated extraction, human verification, authentication, logging, activity tracking, and Word/PDF exports.
- Integrated Azure Document Intelligence and prompt-assembly processes while independently validating generated outputs and debugging data-flow failures.
- Translated stakeholder requirements into backend views, templates, UML artifacts, and technical documentation.

Customer Service Representative | Canadian Tire

2024 - Present

Regina, SK

- Resolve approximately 14 customer questions per day, document recurring solutions, and communicate technical or operational next steps clearly.
- Received a Customer Service Award for dependable performance and communication.

PROFESSIONAL EXPERIENCE (CONTINUED)

Junior IT Technician | Cyber Cafe

2022 - 2023

Douala, Cameroon

- Supported users, workstations, connectivity, software installation, and recurring security and backup checks.

SELECTED TECHNICAL PROJECTS

FILM-BPC Macro Trader V8 | Python | time-series ML | reinforcement learning

- Designed a world-model bottleneck separating sequence encoding, quantile rollout forecasting, zero-parameter mechanical barrier logic, decision heads, regime context, and ensemble fusion.
- Evaluated leakage, model bias, regime instability, transaction costs, and failure modes with time-aware validation.

Trading Data Plane | Python | DuckDB | point-in-time data engineering

- Designed six concurrent data-source workers feeding a DuckDB feature store and point-in-time-correct snapshot builder.
- Required coverage, point-in-time, schema, replay-parity, and resilience gates to pass before data became training-ready.

Gradient Resurrection: Continual Learning Controller | PyTorch | continual learning | theoretical ML

- Developed a trust-scaled preservation controller alongside safe-gradient projection, with a local-validity bound limiting forgetting accumulation to linear growth while the controller remains locally valid.
- Tested linear sanity checks, Split/Permuted-MNIST, a four-dataset mixture, and task-conflict scenarios; published the failed compositional-factorization hypothesis as a negative result.

RL Trading Signals & Foundational ML | Python | TensorFlow/Keras | reinforcement learning

- Explored custom trading-signal generation and Double Dueling DQN, alongside from-scratch implementations of neural networks, regression/SVM, PCA, ensemble learning, and classification error analysis.

EDUCATION

Bachelor of Science, Computer Science (Data Science) | University of Regina

2023 - Expected Jun 2027

Regina, SK

- Operating systems, software engineering, databases, networking, programming, data science, mathematics, and system analysis.

Bachelor of Technology, Computer Science | University of Douala

2021 - 2023

Douala, Cameroon

ADDITIONAL INFORMATION

Bilingual English/French | Valid driver's licence and personal vehicle | Open to ML, data, quant-research, and AI-enabled software opportunities