Nicholas Belev

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CS & Finance McGill senior (3.94 GPA) with enterprise experience at Santander in IT Audit, software, and data. Seeking full-time roles in financial tech, data analytics, and consulting.

Education

Bachelor of Science in Computer Science & AI | **McGill University** | *Montreal, QC* (Aug 2022 – May 2026)
➢ **Business Minor in Finance** ▪ CGPA: 3.94

Key Courses: ▪ Data Structures & Algorithms ▪ AI / ML ▪ Data Science ▪ Statistics ▪ Software Design ▪ Robotics ▪ NLP ▪ Computer Vision ▪ OS ▪ Finance ▪ Blockchain & Cryptocurrency ▪ Financial Accounting

➢ **Exchange Semester in CS & AI** | **IE University** | *Madrid, Spain* (Jan 2025 – Jun 2025)

Certifications and Awards:
- Cybersecurity Foundations, *Google Cloud*
- Stock Market and Investment Research, *Bentley University*
- Xerox Award for IT Innovation, *University of Rochester*
- Data Visualization in JavaScript, *UMass Amherst*
- AI Fluency, *Adava University*

Technical Expertise

Programming Languages – Python (*expert*, pandas, NumPy, FastAPI), Java, C/C++, JavaScript, OCaml, Assembly
Data & Analytics – Power BI (*certified*), Excel with VBA (*certified*), SQL (PostgreSQL, MS SQL Server, Oracle SQL), R
Cloud & DevOps – Docker (*certified*), AWS EC2, Git/Github, Linux/Unix, Jupyter/Colab, Bash Scripting
Productivity – PowerPoint, Word, LaTeX, Agile/Scrum Methodologies

Professional Experience

Data Analytics Intern, Internal Audit | **Santander Bank** | *Boston, MA* (Jun 2025 – Aug 2025)
· Audited Santander's customer service Voicebot (**IBM WatsonX** with **RAG** vector store), evaluating ingestion pipeline, enforcing prompt-injection guardrails, and validating performance (**>90%** SME accuracy, **<2%** hallucination, **<1100 ms** latency) under stress tests.
· Streamlined Anti-Money Laundering (**AML**) audit with Python; cross-referenced **5M+** account entries against **1M+** UN sanction list aliases using **TF-IDF** and **Levenshtein** similarity; eliminated false positives via whitelist SQL filtering; **3x** faster than legacy solution.
· Built end-to-end interactive **Power BI** dashboard, querying **Oracle SQL** to track audit deadlines, ownership, and progress; developed **Gantt Chart** and time-series graph comparing cumulative logged hours to forecasted effort, supporting department-wide **agile** planning.

Quant Analyst & Software Developer | **Northfield Information Services** | *Boston, MA* (May 2023 – Sep 2024)
· Implemented **portfolio optimization algorithm** using Python and Northfield's Optimizer API, powering Household-level strategies for **CN Rochdale**, a **$B+** wealth manager serving high-net-worth clients.
· Developed data modeling and analytics pipelines in Python and SQL to extract **time-series** and **cross-sectional risk** factors, enabling data-driven **volatility** analysis. Monitored volatility metrics; identified risk exposures, facilitating quantitative risk alerts for client portfolios.
· Automated pipeline for migration of **16,000** legacy risk-model files into PostgreSQL with Python, delivers query data in **<100 ms**.
· Built and **Docker**-deployed a **FastAPI** service with PyODBC, providing secure, low-latency (**<220 ms**) client access to risk data.

Treasurer | **McGill University Sailing Team** | *Montreal, QC* (Nov 2023 – Nov 2025)
· Manage **$100K** in assets, prepare annual budget, report financial status to McGill Athletics for audits and tax filings; oversee balance sheet, cash flows, event-expense tracking; conduct **performance-to-cost analysis**, revealing **17x** higher point efficiency at low-cost regattas.
· Forecast expenses with **96% accuracy** by applying statistical methods, enabling long-term cost planning aligned with sustainability goals.
· Co-led fundraising initiatives; increased team assets by **$20K** in **1 year**.

Highlighted Projects

AI Agent for Othello (on GitHub) | Oct 2024 – Dec 2024
· Designed an Othello game-playing AI, combining **Alpha-Beta pruning**, iterative deepening **Minimax**, and Zobrist hash state caching.
· Developed a game-state evaluation heuristic assessing stability, mobility, and position metrics, leveraging move-order techniques to calculate an optimal move **under 2-second time** and 500 MB memory constraints.
· Achieves **100% win rate** vs. Greedy agents; **99% win rate** vs. Stochastic agents; **80% win-rate** vs. top peers' Minimax agents.

Gaze Tracking Computer Vision Software (on GitHub) | Jan 2024 – May 2024
· Developed a real-time computer vision system with **OpenCV** and **MediaPipe** to analyze visual focus on magazine covers.
· Mapped gaze-tracking data using **perspective transforms**; generated heatmaps and **trajectory plots** to visualize user attention patterns.
· Informs data-driven magazine cover optimization (e.g. color scheme) through identified links between design choices and gaze behavior.