

ALEC DINO

Software Developer | C++, Python & ML | Certified Ethical Hacker

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SUMMARY

Computer Science graduate (B.S., UNLV, Dean's List) and incoming M.S. student specializing in C++ and full-stack development, with applied experience in machine learning and cybersecurity (Certified Ethical Hacker). Ships performant software end-to-end, from data pipelines and algorithms to deployed client applications.

EDUCATION & CERTIFICATIONS

University of Nevada, Las Vegas — M.S., Computer Science (AI & Machine Learning) **Expected 2028 (begins Fall 2026)**
University of Nevada, Las Vegas — B.S., Computer Science, Dean's List **May 2025**
Certified Ethical Hacker (CEH) — EC-Council **May 2025**
Relevant Coursework: Algorithms, Data Structures, Operating Systems, Machine Learning, Internet Security & Forensics; AWS Cloud Foundations (Dec 2024)

WORK EXPERIENCE

TC Medicore — *E-Commerce Development Specialist (Independent Contractor), Las Vegas, NV* **Aug 2025 - Feb 2026**

- Engineered data-driven inventory-allocation algorithms in C++ that cut overstock and understock incidents by 30% across 300+ SKUs.
- Implemented JavaScript and AI-assisted automation to expedite review and reconciliation of daily inventory records in Excel, saving the operations team 20+ hours per week across tracking, forecasting, and sales analytics.
- Developed and customized Shopify storefront features (HTML, CSS, Liquid); changes directly produced a 50% increase in conversion within 12 weeks of launch.
- Authored SOPs and redesigned packaging, ordering, and fulfillment workflows, leading a cross-functional team to 200% higher daily throughput.

Freelance Front-End Developer (*Independent Contractor*), Remote **Jun 2025 - Aug 2025**

- Designed and deployed responsive, multi-page web applications for multiple clients, including music artists and small businesses, using HTML5, CSS3, and vanilla JavaScript with breakpoint-driven layouts (Flexbox/Grid). Live example: siopaolo.com.

DinoSales (Amazon Storefront) — *Founder & Owner, Las Vegas, NV* **Jan 2024 - Sep 2024**

- Generated \$10K+ in Q2 2024 revenue via a data-driven product selection and pricing process: analyzed competitor pricing, sales-rank trends, and fee structures to rank products by projected margin.
- Automated repricing, inventory-level monitoring, and order-status tracking with custom scripts and bots, cutting manual processing time by 12+ hours per week; forecasted demand from sales history to reduce stockouts and aging inventory.

TECHNICAL PROJECTS

F1tenth Autonomous Racing — *C++, Python, ROS 2, Docker, LiDAR* **Fall 2024**

- Personally designed and implemented the speed-control, automatic-braking, and collision-avoidance algorithms for a 1/10-scale autonomous race car, processing real-time LiDAR data under tight per-loop latency budgets.
- Re-implemented core control and perception routines from Python in C++, lowering per-loop execution time; deployed via Docker-isolated ROS 2 environments on a team that consistently won races.

Horse Racing Outcome Prediction — *PyTorch, scikit-learn, C++* **Spring 2026**

- Built an end-to-end ML pipeline on large-scale Kaggle race data (feature engineering, normalization, dimensionality reduction, hyperparameter tuning, cross-validation); diagnosed and eliminated a systematic prediction bias with batch normalization, validated via Git-tracked experiments.
- Wrote a C++ Monte Carlo backtesting engine that replays model predictions against historical races for fast, large-scale betting-strategy evaluation.

KOTOBA — AI Japanese Flashcard Trainer — *Python, FastAPI, SQLite, Cohere API (Embed, Rerank, Command)* **Summer 2026**

- Built a full-stack spaced-repetition trainer with SM-2 scheduling plus a compounding in-session requeue algorithm, direct import of raw Anki .apkg decks with audio, and a vanilla JS frontend.
- Implemented a RAG-style semantic search pipeline (Cohere Embed + Rerank over in-memory numpy cosine similarity), including romaji queries resolved by kana round-trip validation.
- Engineered structured LLM generation for token-level grammar breakdowns and vocabulary-constrained practice drills: Pydantic-validated JSON contracts, retry-on-error, sentence-hash caching, and a mocked API mode powering a zero-cost pytest suite.

UNLV Parkify — Smart Campus Parking (Senior Capstone) — *Arduino, Raspberry Pi, Swift, SQL* **Spring 2025**

- Engineered the sensor-to-backend pipeline (ultrasonic sensors on Arduino/Raspberry Pi streaming live occupancy data to a SQL-backed service, with debouncing logic), surfaced through a responsive web app and native iOS client (Swift); presented to industry judges.

TECHNICAL SKILLS

Languages: C++, Python, JavaScript, SQL, Swift, C#, HTML/CSS

Frameworks & Tools: PyTorch, TensorFlow, scikit-learn, FastAPI, Cohere API, Docker, ROS 2, Git, ASP.NET MVC, Liquid, Arduino / Raspberry Pi, AWS

Cybersecurity & Networking: Nmap, Metasploit, Wireshark, tcpdump, Shodan, Censys