Kyle Ton

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EDUCATION

University of California, San Diego — Expected Jun. 2027
B.S. in Computer Science and Mathematics — *La Jolla, CA*
- **Relevant Coursework:** Data Structures & Algorithms, Computer Architecture and Assembly, Linear Algebra and Differential Equations, Data Science in Practice, Numerical Optimization of Linear Systems, Graph Theory

EXPERIENCE

Software Engineering Intern - Full-Stack — Jun. 2025 – Aug. 2025
ForOurLastNames — *Remote, US*
- Containerized and deployed a Node.js SPA via **AWS Lambda (Docker)**, serving static content through S3 and CloudFront and backend APIs through Lambda to enable near-serverless scalability at sub-$30 monthly cost.
- Integrated **Supabase Auth** and **Stripe Billing** with verified webhooks, secure Row-Level Security (RLS) policies, and automated 2-week trial flows, establishing a subscription-ready authentication pipeline.
- Configured **Prometheus** and **Grafana** monitoring using CloudWatch exporter to visualize Lambda invocation metrics, informing capacity planning and resource tuning for an expected 5,000-user scale.

Software Engineering Intern - Full-Stack + AI — Oct. 2024 – Dec. 2024
PM Accelerator — *Remote, US*
- Led the development of a FastAPI + React application powering an AI resume optimizer, collaborating with AI engineers to enhance ATS keyword alignment across 100 test resumes with a **15% average increase** in target keywords.
- Deployed asynchronous Celery workers with a **Redis broker** on Heroku to parallelize resume processing, cutting latency by **50%** (20s to 10s) during prototype testing, increasing efficiency of function pipeline.
- Created and indexed **MongoDB Atlas** documents linked to Google OAuth IDs, enforcing user-level isolation and secure access and storage for 100+ beta users.

Software Engineering Intern — Aug. 2024 – Oct. 2024
Trace — *Garden Grove, CA*
- Automated firmware version tracking and remote diagnostics for **1,000+ cameras** using Python + Paramiko SSH, improving documentation accuracy and deployment traceability.
- Developed remote control routines (fan, power toggles, component tests) to isolate hardware issues, reducing troubleshooting time from 2.5 to 1.5 hours per cycle and saving **10 hours weekly**.
- Integrated automated logging into shared Google Sheets dashboards, streamlining QA communication and bi-weekly hardware audits, eliminating manual entry errors.

PROJECTS

MatchPointAI | *Python, NumPy, Pandas, Scikit-learn, FastAPI, TypeScript, XGBoost* — Jun. 2025
- Engineered 12+ player and match level features from a 389,000+ row ATP historical dataset by pre-processing performance metrics in parallel, enabling efficient feature engineering with 25-match rolling statistics.
- Implemented 5-KNN imputation on 10,000 sample rows to fill missing data, stratified by era and player rank, and optimized 7+ hyperparameters, achieving **68% randomized search cross-validated accuracy**.

Git-Lint | *Python, FastAPI, Pinecone, AWS Lambda/S3, Docker, OpenAI Agents* — May 2025
- Developed an AI-powered code reviewer using FastAPI and OpenAI's Agents SDK, creating an orchestrative agentic system capable of context-aware file-by-file analysis and iterative feedback.
- Integrated a **RAG-based context retrieval system** using Pinecone vector search and AWS S3 for over 200 code chunks, enabling access to relevant file embeddings for repo-specific memory.

StockSense | *React, Java, Spring Boot, PostgreSQL, AWS S3, Docker, Redis* — Mar. 2025
- Built a real-time stock market platform combining React-based UI with a **Spring Boot** backend, delivering live prices and sentiment-tagged news stored in AWS S3, with CI/CD implemented via GitHub Actions.
- Enabled data-driven investment insights by web-scraping stock news with yfinance API and analyzing media sentiment with **HuggingFace's FinBERT** model, providing numerical evaluation per-article.

TECHNICAL SKILLS

Languages: Python, Java, TypeScript, SQL, JavaScript, HTML/CSS (Tailwind)
Frontend & Backend: React.js, Next.js, Spring Boot, FastAPI, Node.js, Express, PostgreSQL REST API
Cloud & DevOps: AWS (API Gateway, Lambda, S3, CloudFront), Docker, GitHub Actions (CI/CD), Redis
Machine Learning/AI: Scikit-learn, XGBoost, RAG Pipelines, Vector Databases (Pinecone)