Evan Gabrielson

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EDUCATION

University of Southern California — August 2021 - December 2023
M.S. Electrical and Computer Engineering (Machine Learning and Data Science)

University of Southern California — August 2018 - May 2022
B.S. Electrical and Computer Engineering — *GPA: 3.85 / 4.00*

Honors: Magna Cum Laude, USC Presidential Scholarship, USC Viterbi Research Fellowship, Lundquist Scholarship
Awards: Viterbi Merit Research Award, TroyLab's "Startup of the Year", Contrary VC's "US College Startup Champion"
Coursework: Supervised and Unsupervised Machine Learning, Machine Learning in Production, Object-Oriented Programming

TECHNICAL SKILLS

Programming Languages: Python, TypeScript, SQL, NoSQL, C++, Go, Rust
Libraries and Tools: PyTorch, Pandas, NumPy, LangChain, AWS, AirFlow, dbt, BigQuery, Spark, Docker, Terraform, FastAPI, Git
ML Architectures: Transformers (GPT, ViT, LSTM), Diffusion (DDPMs), Clustering (KNN, K-Means, GMM), CNN, XGBoost

WORK EXPERIENCE

Senior Software Engineer, Artificial Intelligence — January 2024 - May 2024
Datum Technologies Corporation
- Led development of AI-assisted data extraction service using AWS, FastAPI, LangChain RAG, and Pinecone to achieve 5x increase in hourly throughput of commercial lease processing, resulting in 80% reduction in product pricing.
- Engineered internal web platform and data pipeline for augmenting LLM-generated QA pairs with human feedback, boosting customer satisfaction to 99% while cleaning training data with AWS Kinesis / Glue for downstream analytics and ML modeling.
- Streamlined user management for internal platform by integrating Twilio SMS for whitelisted OAuth, Stripe Connect for payouts, and in-platform Slack support resulting in 50% cut in administrative work for Chief Operating Officer.

Founder and Chief Technology Officer — December 2021 - May 2024
Carbonlink Incorporated
- Architected B2B web platform for enterprise carbon emission accounting and emission offsetting, serving $60 million in reduction credit volume from 340 sustainability projects for 200+ businesses.
- Migrated backend from Next.js to centralized REST API provisioned in Terraform and AWS to enhance scalability and maintainability, yielding 45% reduction in operating costs, 30% faster release cycles, and 99.8% service uptime.
- Identified Carbonlink API as potential growth driver by visualizing application data streams in Kibana dashboards built using Elasticsearch Query Language, leading to a 125% increase in monthly revenue.
- Executed 3 product roadmaps by assigning Jira tickets in daily scrums, achieving a 95% sprint completion rate across 12-person team.

Research Scientist — August 2020 - September 2021
USC Institute for Technology and Medical Systems
- Optimized runtime complexity of convex hull generation with Graham Scan algorithm coded in NumPy and Shapely, reducing processing time of brain imaging data from 23 minutes to under 1 minute leading to near real-time simulation of neurons from brain images.

Software Engineer — May 2021 - August 2021
Northrop Grumman Corporation
- Rectified bit overflow in navigation system code isolated through rigorous unit testing in C++, saving $1M+ from averted unit recalls.
- Devised ARIMA model for denoising accelerometer signal input, isolating original signal with 99% accuracy after 100ms.

Software Engineer — May 2020 - August 2020
Northrop Grumman Corporation
- Deployed C++ script to upgrade IBM Requirements Database to support database transactions, change previews, and reversions, reducing database timeout frequency by 80% while improving overall data integrity.
- Generated unit tests in C++ Bazel for UH-60 Blackhawk and programmed GUI dashboard for unit test monitoring and error tracing.

PROJECTS

Predicting IBM Subscription Churn with Gradient Boosting — January 2024 - February 2024
- Conducted SHAP value analysis on subscription service data, revealing competitor price matching and discounted annual subscriptions as key strategies to lower churn by up to 20%.
- Addressed data imbalance with SMOTE and trained Gradient Boosting classifier to reach 83% ROC-AUC score on new user churn.

Gabrielson & Company: Automating Financial Check Filing with OCR — March 2021 - June 2021
- Implemented OCR tool in PyTesseract, OpenCV, and Streamlit to parse financial data from images of checks, scoring a 96% accuracy on digital characters and eliminating 5 hours of manual check filing weekly for private accounting firm.

LEADERSHIP

Vice President and Treasurer at Troy Tones Acapella — August 2020 - May 2022
Treasurer at USC Club Water Polo — August 2019 - May 2022