

Tiffany Yung

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EDUCATION

Purdue University

May 2028 (Expected)

B.S. in Computer Science, B.S. in Mathematics

West Lafayette, IN

- Relevant Coursework: Data Structures and Algorithms, Analysis of Algorithms, Systems Programming, Linear Algebra, Statistical Methods, Computer Architecture, Discrete Mathematics, Multivariate Calculus

EXPERIENCE

Purdue Google Developer Group

Jan 2026 – Present

Full-Stack Developer – BoilerCheck

West Lafayette, IN

- Engineered RAG pipeline using LangChain, Pinecone, & HuggingFace models to enable source-backed Q&A across 450+ pages of Purdue University policy documents, with Firebase storage & web scraper for document ingestion.
- Integrated cross-encoder reranking on retrieved chunks before LLM generation, improving answer relevance.
- Designed benchmarking framework with curated gold-standard eval set to compare 30+ embedder + reranker combinations, measuring context precision, hit rate @k, recall @k, & latency to select optimal stack over vanilla RAG.

Purdue Stack

Sept 2025 – Dec 2025

Project Lead – Live Celebrity Trending News Feed

West Lafayette, IN

- Led 6-person team to design and build a real-time celebrity news feed for a Social Stock Exchange platform.
- Implemented web scraping and LLM pipeline using Axios, Cheerio, NewsAPI, and Gemini to ingest celebrity-related news articles and classify trending topics with 85%+ accuracy based on entity mention frequency and recency.

Amazon Web Services (AWS)

May 2025 – August 2025

Software Development Engineer Intern

Seattle, WA

- Engineered Native AWS issue management API handling **130M+ daily requests** to support priority and label-based filtering and sorting, improving issue management and triage for **1M+ employees**.
- Implemented end-to-end changes across API model, service logic, and datastore layers, maintaining consistency across CRUD operations and preserving backward compatibility.
- Designed unit and integration tests to validate request/response behavior to ensure safe production rollout.
- Contributed to design documents, code reviews, and new API design decisions in collaboration with senior engineers.

KeywordsAI (YC W24)

Jan 2023 – May 2023

Software Engineer Intern

Remote

- Built an NLP-powered resume evaluation tool in Python that performs semantic analysis of keyword and action-verb usage to deliver actionable improvement recommendations to users.

PROJECTS

SkyLog: Flight Tracker | *Python, Pandas, PyTorch, Hugging Face Transformers*

- Built a full-stack flight tracking web app (Flask, PostgreSQL, React) supporting flight CRUD, filtering, and reporting.
- Designed a RESTful API with separated data access from request handling, powering a reporting feature that aggregates flights by airline, route, and date to surface stats like total flight time, total miles, and on-time rate.

Stock Market News Sentiment Analysis | *Python, Pandas, PyTorch, Hugging Face Transformers*

- Implemented financial news sentiment analysis pipeline using FinBERT to score articles across 13 assets from Yahoo Finance, MarketWatch, and NewsAPI and detect short-term shifts in stock market sentiment.
- Generated hourly buy/sell/hold signals from sentiment deltas and visualized trends in a Streamlit dashboard.

Functionary: Codebase Visualization Tool | *React, Express/Node.js, MongoDB, Pinecone, OpenAI*

- Developed interactive tool for developers to visualize complex codebases, streamlining onboarding processes.
- Implemented Abstract Syntax Tree parsing to map function calls and dependencies for clear visualization.
- Designed RAG pipeline using Pinecone for semantic search across codebase and context-aware LLM queries.

EcoSentry: Real-Time Wildlife Detection | *TensorFlow, Firebase, React Native, Twilio, Raspberry Pi*

- Built Raspberry Pi-based IoT system that streams camera data to a self-trained TensorFlow CNN for real-time wildlife detection, achieving 80%+ accuracy and triggering automated alerts for high-risk sightings.
- Developed React Native mobile app with Firebase storage and Twilio SMS integration to deliver notifications.

SKILLS

Languages: Python, Java, C, C++, JavaScript, TypeScript, Go, SQL, R, HTML, CSS

Frameworks & Tools: AWS (Lambda, EC2, CloudWatch), Express, Node.js, PostgreSQL, MongoDB, NumPy, pandas, PyTorch, TensorFlow, Pinecone, Docker, Kubernetes, Git, Linux, React, OpenCV, Matplotlib, BeautifulSoup