JAMES YANG

jamesyang663@gmail.com | 647-937-5288 | linkedin.com/in/jpyang | github.com/HaoChiBao | jamesyang.ca

EDUCATION

Western University London, ON
Bachelor of Computer Science *September 2022 – April 2027*
- **Relevant Coursework**: Data Structures & Algorithms, **Operating Systems**, **Distributed Systems**, **Relational Databases/SQL**, Linear Algebra, Numerical Methods.

EXPERIENCE

RBC Amplify Toronto, ON
Software Developer Intern *May 2025 – August 2025*
- Designed and shipped an end-to-end **ML workflow** of **3 services**: data ingestion & labeling, feature computation for **time-series liquidity**, and a **recommendation** model; established **train/validate/test** splits and evaluation gates.
- Converted research prototypes into **production pipelines** with schema enforcement, type-checking, and **human-in-the-loop** review for auditability.
- Reduced analyst recommendation time by up to **92%**, verified with experiments and stakeholder UAT; documented findings for cross-functional partners.
- Packaged models + dataflow as **Docker** microservices on **OpenShift (Kubernetes)** with readiness/liveness probes and resource limits to ensure reliability at scale.
- Won **Industry Disruptor Prize** ($20K); solution advancing to Commercial Banking, projected to influence **$10B+** in transactions annually.

Boardy Remote
Contract Software Engineer *February 2025 – May 2025*
- Developed a **real-time ML** voice-agent: streaming **ASR** → NLU → TTS loop with **sub-300ms latency** under variable load; profiled bottlenecks and optimized batching.
- Instrumented services with **structured logs/metrics** to analyze experimental quality regressions; iterated model thresholds and error handling from observed data.
- Containerized services on **Railway** with auto-scaling and health checks; reduced downtime incidents by **35%**.

Magnify Access Remote
Software Developer Intern *April 2024 – August 2024*
- Engineered a data ingestion pipeline (**Node.js → AWS S3**) with exponential backoff, checksums, and idempotent retries; improved job reliability by **30%** and retrieval latency by **25%**.
- Hardened API surfaces with **JWT** and CI/CD checks; added regression tests for **feature extraction** paths to prevent data drift-related failures.
- Streamlined dev environments on **Linux** with **Docker** for reproducible training/inference runs and faster debug cycles.

PROJECTS

Hotel Booking Cancellation Prediction (1st Place, $1,000) | *Python, scikit-learn, XGBoost/LightGBM, Pandas, NumPy*
- Built a supervised **end-to-end** pipeline: data auditing, leakage removal, **feature engineering**, model training, and **stratified K-fold** validation with reproducible seeds.
- Benchmarked **6+ model families**; improved AUC via calibrated probabilities, class weighting, and **early stopping**; **60%** faster training through vectorization/parallelism.
- Explained drivers with **SHAP**; packaged artifacts and evaluation reports to support policy decisions (overbooking risk mitigation).

FurMe — UofTHacks11 1st Place | *React, Flask, Arduino, OpenCV/DeepFace*
- Implemented a camera-driven **ML inference** loop with emotion classification; designed input preprocessing, thresholding, and debouncing to avoid feedback loops.
- Integrated Flask services with a React client and hardware I/O; profiled **OpenCV** pipelines to maintain **real-time responsiveness** under varying light/noise.

TECHNICAL SKILLS

Languages: Python, **C**, **C++**, TypeScript/JavaScript, Java, SQL
ML: scikit-learn, XGBoost/LightGBM, *familiar with* PyTorch/TensorFlow, OpenCV, SHAP, model evaluation
ML Systems: **Linux**, Data Pipelines, Feature Engineering, Experimentation, Observability (logs/metrics)
Infra: **Docker**, **Kubernetes**/OpenShift, CI/CD (GitHub Actions)
Cloud & Frameworks: AWS (S3, EC2), Node.js/Express, React/Next.js, Flask/FastAPI

AWARDS

- **RBC Amplify Industry Disruptor Prize** ($20K), 2025 — **1st**: Hotel Booking Prediction ($1K), UofTHacks11, Dataquest, Overhaul — **2nd**: Hack Western, QHacks, Hackville — **3rd**: MetHacks **Winner**: DeltaHacksIX/X