Rui (Richard) Qiu

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WORK EXPERIENCE

ArcTrade Toronto, ON (Remote)

Software Engineer Jul 2025 – Present

- Proposed and led a **multi-region, multi-account CI/CD pipeline** (SQS, cross-account IAM), letting one pipeline deploy **300+ services** across regions and eliminating manual VPN-switched deployments.
- Redesigned the CI/CD logging pipeline (SQS, Lambda, SQL Server) with runner-side S3 archiving, batched log writes, and an insert-only DB, **fixing incomplete and out-of-order archives** while significantly cutting DB load.
- Designed a DB-backed Dockerfile platform with a UI, composing Dockerfiles from reusable commands so **one edit rolls out vulnerability fixes to 300+ services**, cutting rollout time from **days to hours**.
- Re-architected CI/CD version resolution from sequential calls to **async concurrent queries** across ECR, ECS, and Lambda, adding state reconciliation that **eliminated recurring wrong-version production deployments**.
- Built scalable post-promotion **drift detection** comparing production to source across Lambda/ECS images, ASG AMIs, SQL schemas, and S3 import maps, surfacing failed rollouts in **nearly every release**.
- Proposed and built EC2 Spot runners with automatic On-Demand failover and job re-queuing on capacity shortages or mid-run interruptions, cutting **CI/CD compute costs** without impacting pipeline reliability.

Veoneer Markham, ON

Software Engineer Intern May 2023 – Aug 2024

- Built a **warehouse ordering and dispatch platform** (React, FastAPI, SQL Server) linking SMT production lines to the warehouse, with configurable material-train routing, **reducing order cycle time by 70%**.
- Served as **primary engineer** for **10+ production-critical Manufacturing Execution Systems (MES)**, root-causing and fixing software failures to restore factory operations and minimize downtime.

PROJECTS

AI-Powered Investment Research Platform 2026 – Present

- Turned the open-source TradingAgents **multi-agent LLM** CLI into a full-stack platform (React, FastAPI, LangGraph), adding stock screening, backtesting, and portfolio analytics.
- Architected a **serverless AWS backend** (API Gateway, Lambda, SQS, DynamoDB, S3) for parallel batch stock analysis, with Cognito auth and idempotent processing via DynamoDB conditional writes.

TECHNICAL SKILLS

Languages: Python, C#, C/C++, TypeScript, SQL (T-SQL)
Frameworks & Databases: .NET, React, FastAPI, gRPC, SQL Server, DynamoDB, Redis
Cloud & Tools: AWS (Lambda, ECS, EC2, SQS, S3, API Gateway), Docker, Terraform, Jenkins, Git, Datadog
AI & Agentic Systems: LLM APIs, LangGraph, Agent Workflows, Tool/Function Calling, Claude Code, Codex

EDUCATION & CERTIFICATIONS

Georgia Institute of Technology Atlanta, GA (Online)

Master of Science in Computer Science (part-time) Jan 2027 – Expected 2029

McMaster University Hamilton, ON

Bachelor of Electrical Engineering | GPA: 3.7 / 4.0 Sep 2020 – Jun 2025

Certification: AWS Certified Solutions Architect – Associate (SAA-C03) 2026