Juno Gong

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SKILLS

Languages: Python, Java, TypeScript, JavaScript, SQL
Frameworks: React, Node.js, Express.js, Flask, Spring Boot, pandas, NumPy
Cloud & Databases: AWS (EC2, DynamoDB, ElastiCache, Cognito), Google Cloud Platform (BigQuery, Cloud Functions, Dataform), Docker, Terraform

EDUCATION

University of Toronto — Graduated Sept. 2025
Bachelor of Science in Spatial Data Science

EXPERIENCE

Associate Data Engineer — Sept. 2023 – Jan. 2024
Clearsum (Climate Risk Analytics Firm) — *Toronto, ON*

- Modernized the firm's analytical capabilities by migrating to the latest global climate standards, significantly increasing the accuracy and variety of client-facing metrics.
- Engineered a serverless ETL pipeline to ingest large-scale datasets from external APIs into a centralized data lake.
- Implemented a normalization algorithm to merge redundant data sources, reducing the total storage footprint by 95% while maintaining data integrity.
- Refactored compute-intensive queries, reducing execution time by 85% and infrastructure costs.
- Designed the business logic to convert raw data inputs into a standardized risk index used directly in client-facing reports.
- Deployed 3 interactive dashboards, enabling clients to visualize complex climate risk metrics.

PROJECTS

Stakt.live *(Market Arbitrage Site) | React, Node.js, AWS, Jest*

- Built and launched a platform that captures arbitrage market opportunities in real-time, providing users a competitive edge while maintaining low operational overhead.
- Architected a low-latency arbitrage engine utilizing Redis caching to process thousands of live odds updates per day, reducing external API calls.
- Designed a high-throughput NoSQL schema to efficiently store and query historical betting data with single-digit millisecond retrieval times.
- Engineered a GitHub Actions CI/CD pipeline to automate Jest unit testing and deployment, ensuring code reliability prior to release.
- Secured user identities using AWS Cognito and managed sensitive infrastructure secrets using AWS Systems Manager to prevent API abuse.

Stripe Billing Engine *(SaaS Subscription System) | Java 21, Spring Boot, PostgreSQL, Docker*

- Engineered a flexible subscription backend using Hexagonal Architecture to isolate core business logic from infrastructure dependencies and adapters.
- Implemented an atomic idempotency filter and Transactional Outbox pattern to ensure exactly-once processing of financial webhooks, eliminating race conditions.
- Optimized throughput using Java 21 Virtual Threads to handle thousands of concurrent I/O-bound requests with minimal memory footprint.
- Built a resilient recovery system featuring circuit breakers and exponential backoff retry queues to gracefully manage downstream database failures.