Jason Chou

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Experience

Senior Software Engineer, True AI June 2021 – March 2025

- Architected a stateless, queue-based scaling solution that increased document processing capacity by 100x, preventing system standstills from complex SQL deadlocks and retaining key enterprise contracts.
- Containerized legacy Windows components to Linux using Docker, Kubernetes, and Helm, improving CI/CD flexibility and scalability.
- Integrated flexible authentication layers (OAuth, JWT, and custom schemes) for client-deployed PII-sensitive environments to meet compliance standards.
- Introduced distributed observability using OpenTelemetry, Jaeger, and Prometheus to debug performance bottlenecks across C# .NET Core microservices.
- Mentored 3 engineers and advised architectural decisions impacting enterprise contracts processing millions of mortgages annually.

Software Engineer, True AI June 2019 – May 2021

- Spearheaded lift-and-shift migration to AWS (EC2, RDS, Lambda) and Azure, improving system availability and disaster recovery capabilities while coordinating cross-platform migration strategy and implementation.
- Led UI modernization initiative to replace desktop applications with a React-based web solution, eliminating per-machine installations and scaling concurrent users per client.
- Integrated Python-based ML workflows with Airflow orchestration, streamlining document classification and extraction processes.
- Refactored C# WPF GUI features and resolved threading issues for the document classification HITL platform.

Undergraduate Student Researcher, AquaSim April 2018 – March 2019

- Implemented a multi-channel MAC topology in ns-3 to conduct network traffic analysis using tcpdump and Python
- Improved the performance of wireless communication in underwater environments by adjusting optimal parameter settings such as message length, transmission power, modulation power, and baud rate

Projects

Piecewise piecewise.fit

Python, Dagster, FastAPI, TypeScript, Next.js

- Built a visual inference pipeline that uses computer vision models to detect, extract, and generate embeddings to efficiently match clothing items across multiple outfits.
- Designed backend architecture using a graph database to track item co-occurrence and compatibility based on past user behavior and generate visual style metrics.

Lip Reading Model Optimization github.com/repo

Python, Keras, TensorFlow, Google Cloud

- Optimized LipNet by implementing a novel method of curriculum training that speeds up convergence
- Streamlined the interface for training different video formats and deployed it to Google Cloud for training and predicting

Skills

Languages: C#, Python, TypeScript, Bash
Frameworks: .NET Core, React, Node.js, FastAPI, Airflow, Dagster
Tools: SQL, AWS, Azure, Google Cloud, Docker, Kubernetes, Helm

Education

City College of New York
Bachelor of Engineering in Computer Engineering Magna Cum Laude, May 2019