Tianle Cheng

+1 6462698719   - tianlecheng112@gmail.com   -   https://www.linkedin.com/in/tianle-cheng-6147a4325

SUMMARY

Seeking a **Summer 2025 Software Engineering Internship**.

A Software Developer with a strong mission to drive technological revolution. Proficient in **Java, Python, Go, TypeScript**, and skilled in building scalable systems using **Docker** and **AWS**. A lifelong learner with deep curiosity, dedicated to delving into the core and details of challenges, proposing and implementing evolutionary solutions. Amateur boxer and Blues guitarist.

EDUCATION

New York University   **New York, USA**

Master of Science in Applied Urban Science and Informatics (GPA: 4.0/4.0)   *Sep 2024 - May 2026*
  - *Core Courses: Applied Data Science, Machine Learning for Cities, Urban Computing and AI*

University of Science and Technology Beijing   **Beijing, China**

Bachelor of Engineering in Artificial Intelligence   *Aug 2019 - Jun 2023*

TECHNICAL SKILLS

Programming Languages: Python, Java, SQL, JavaScript, TypeScript, Go, HTML, CSS, C, R
Frameworks and Technologies: FastAPI, Spring Boot, Node.js, React, Redux, REST API, Docker, Kubernetes, CI/CD
Databases and Tools: MySQL, PostgreSQL, MongoDB, Redis, AWS (S3, EC2, Lambda, SageMaker), Git

PROFESSIONAL EXPERIENCE

C-STAR   *FastAPI, AWS, MySQL, React*

Software Engineering Intern, New York City, USA   *Oct 2024 – Present*
- Developed a web app using **FastAPI**, **React**, and **MySQL**, reducing manual processes in real estate by 95%.
- Used **AWS S3**, **EC2**, and **Lambda** to establish a data pipeline for automated batch ingestion and processing.
- Integrated **Amazon SageMaker** to predict sale prices, rental rates, and identify comparable listings.
- Utilized **MySQL** and **Google Sheets API** to store and sync real estate data dynamically in real time.
- Implemented rolling storage to delete older data, reducing Google Sheets storage usage by 90%.

PROJECTS

Full Stack E-Commerce App with SpringBoot & React   *Java, TypeScript, SpringBoot, React, Docker, MySQL, Redis*
- Designed and developed a full-stack e-commerce app from scratch using **Spring Boot**, **MySQL**, and **React**.
- Built a responsive frontend using **React**, **TypeScript**, **Redux**, and **Material-UI** for modern design.
- Included features such as product browsing, search, filtering, shopping cart, login, and checkout.
- Built **RESTful APIs** for frontend-backend communication and containerized the app with **Docker**.
- Used **Spring Data JPA** and **Hibernate** for data access, storing product, user, and order data in **MySQL**.
- Integrated **Spring Security** with **JWT** for secure user access and data protection.
- Leveraged **Redis** for caching shopping cart data, improving processing speed by 30%.

Academic AI Agent   *Python, Llama3.2, SQLite, Docker, RAG*
- Developed an academic-focused AI agent to summarize research trends based on user-defined keywords.
- Deployed **Llama3.2** locally, implementing a **frontend** and **backend** for inference using Open WebUI and Ollama.
- Automated code generation and **web scraping** of CVPR, NIPS, and other academic publications into **SQLite**.
- Utilized **bge-m3** as embedding model for **RAG** and **GPT-4o API** for paper retrieval and precise summarization.
- Built a **context management tool** to split and process text chunks, enabling LLMs to analyze long papers.
- Integrated **LLM** with **SQLite** to read data, run **Python** scripts, and create **HTML** visualizations.

MLOps for Churn Prediction with AWS SageMaker   *AWS, Python, Docker, Git, CI/CD*
- Developed an end-to-end MLOps pipeline for churn prediction using **AWS SageMaker**, **EC2**, and **XGBoost**.
- Implemented **ETL** workflows with **AWS Glue** and **AWS Lambda** to preprocess data stored in **Amazon S3**.
- Optimized model performance using **SageMaker Automatic Model Tuning** for hyperparameter search.
- Exposed the trained model via a **Flask** API backend for real-time inference and integration.
- Built CI/CD pipelines using **GitHub**, **CodePipeline**, and **CloudFormation**, deploying models with **Docker** on **ECR**.
- Managed model lifecycle with **SageMaker Model Registry** and **Step Functions**, monitoring with **AUC**.