Peter Jiang

jiangyuweicn@gmail.com https://www.linkedin.com/in/PeterJiangSDE
+1(323) 301-3957 https://www.peterjiang.me

EXPERIENCE

Amazon, Seattle, Senior Software Development Engineer Jan 2020 – Present

Tech lead of a team of 7, delivered Amazon's first hosted digital banking platform for emerging and developed markets:

- Designed and delivered 40+ back-end APIs from scratch to support complex in-house banking business needs, including full-fledged banking features
- Architected and implemented microservices to provide Banking-as-a-Service seamlessly integrated with Amazon's internal platforms
- Spearheaded expansion into Mexico, Singapore, Brazil, the US, and Japan, launching debit, buy-now-pay-later, co-branded, and private-label card platforms now serving 20M+ customers globally

Led multiple initiatives in the AI and automation space to enhance operational efficiency and developer productivity:

- Drove the development of an AI Agent Registry, enabling a scalable multi-agent framework that supports agent-to-agent collaboration for autonomous operations
- Led a team to build a multi-agent operations system that assists on-call engineers by accelerating production issue debugging and automating CI/CD pipeline recoveries when confidence thresholds are met
- The AI agent framework and registry solutions attracted cross-organizational interest for broader adoption across Amazon's AI-driven operational systems within both AWS and Consumer divisions

Delivered a critical component of an external payment processing partners' outage system:

- Minimized order impact and loss during partner outages across 100+ integrations, detecting hundreds to thousands (6,000+) of actionable incidents monthly
- Reduced average outage detection time from up to 30 minutes to under 5 minutes, strengthening payment system resiliency
- Co-authored an approved US patent (Patent No. US-12045119-B2)

Achieved India's Payment Aggregators and Payment Gateways (PAPG) regulation and data localization compliance for a critical payments component:

- Designed secure data distribution and localization mechanisms compliant with sovereign jurisdiction requirements
- Decoupled the data between Payment Aggregators and Payment Gateways to meet regulatory standards

Implemented an upfront charge mechanism to reduce friction introduced by Europe PSD2 regulation for pre-sale orders:

- Supported an average of 250K daily charges (peaking over 500K)
- Prevented millions of euros in potential revenue loss by mitigating customer friction from re-authentication flows

SIG: Susquehanna International Group, Philadelphia

Software Development Engineer Feb 2018 – Dec 2019

- Participated in designing and implemented an ultra-low-latency C++ trading gateway, achieving ~30% faster median latency than the industry average while handling millions of orders per day
- Built a message validation engine applying 30+ checks on ~100M messages per hour with minimal memory footprint, reducing runtime from 12 hours to under 1 hour
- Delivered tools for functional and performance testing, enabling infrastructure teams to verify production readiness with enhanced black-box coverage

Software Development Engineer Intern Jun 2017 – Aug 2017

- Optimized a latency analysis system, cutting processing time from 8 hours to under 1 hour
- Enhanced a core order routing system handling 20M+ daily orders, improving reliability and reducing latency by 15%
- Developed a database validation tool to cross-check internal trading data with NYSE Pillar for accuracy and consistency

RESEARCH EXPERIENCE

Stock Price Trends Predicting System Based on NLP Sentiment Analysis, Rutgers University Jan 2017–May 2017

- Preprocessed text contents with NLTK from Twitter and Stocktwits with Python: removing hyperlinks, citations, tickers, stop words and numbers; tokenizing the sentences to a list of words
- Extracted the features by *bag of words* and *word2vec*, trained SGD and ANN model for binary sentiment prediction
- Trained SVC, GaussianNB and SGD classifier for stock price trend prediction. Achieved 0.73 accuracy for sentiment prediction based on the one-year data we used; achieved the best accuracy of 0.67 for stock close price trends prediction over one month
- Led a team of five and designed a stock tracking and predicting system
- Implemented Bayes, SVM, ANN based prediction algorithms and RSI, EMA prediction indicators

EDUCATION & AWARDS

Rutgers University, the State University of New Jersey, New Brunswick, New Jersey, USA Sep 2015 – Jan 2018
Master of Science in Electrical and Computer Engineering, Concentration: Computer Engineering GPA: 3.9

South China University of Technology (SCUT), Guangzhou, China Sep 2011 – July 2015
Bachelor of Science in Engineering **Award:** Third-class Scholarship of SCUT (2013-2014)

SKILLS

Technical: Java, C/C++, Python, AWS