KE XIN CHONG (CHLOE)

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Career Objectives

Senior Data Scientist with 6+ years of experience in anomaly detection, NLP, and rapid ML prototyping. Solidity developer with a passion for applying machine learning to enhance risk visibility and operational resilience in decentralized systems.

Experiences

Advance.AI, Singapore | Senior Data Scientist Jan 2023 – Dec 2024

- Redesigned the fraud detection system using Apache Kafka, reducing average transaction processing time from 850ms to 450ms, enabling scalable, low-latency decisioning.
- Maintained and enhanced a rule-based fraud engine (e.g., velocity checks), lowering false positives by 15% through continuous rule tuning and collaboration with Fraud and BI teams.

Jewel Paymentech Pte Ltd, Singapore | Senior Data Scientist Mar 2022 – Dec 2022

- Built a neural network–based backup fraud model to complement the rule engine, improving fraud detection recall by 12% during atypical transaction patterns.
- Initiated and developed a Bokeh dashboard prototype to track real-time merchant website content changes, reducing investigation time by 25% via early detection of suspicious edits.
- Collaborated with client-facing teams to explain fraud flags and classification outcomes, reducing escalation resolution time by 30% and improving system transparency for customers.

Jewel Paymentech Pte Ltd, Singapore | Data Scientist July 2018 – Mar 2022

- Designed and deployed text classification models to detect illegal or non-compliant product listings for e-commerce clients, reducing manual review workload by 40% and enhancing compliance workflows.
- Developed NLP-based website classification models, improving accuracy by 18% and automating risk scoring for over 10,000 merchant reports every two weeks.
- Built a merchant category code (MCC) recommendation model using website text content, streamlining the merchant onboarding process and reducing manual MCC classification effort by 30%.

Web3 & Blockchain Projects

Voicy: Decentralized AI Voice Marketplace on Flow | *Permissionless IV, June 2025*

- Co-developed a Web3 platform to enable creators to enable creators to license their voices via smart contracts and earn royalties from AI-generated audio.
- My primary contribution was architecting the backend AI engine, which securely handles voice cloning and integrates with Flow smart contracts to automate royalty payments (USDC) to voice creators.
- The project architecture lays the groundwork for future "voice as digital identity" applications, a key component for building trust in decentralized systems.
- **Tech Stack:** Python (Flask), Docker, Nodeops, Flow Blockchain (Smart Contracts, USDC), IPFS.
- **Code:** github.com/fayedaihall/voicy, https://github.com/KeXin95/voicy-backend
- **Slides:** https://bit.ly/voicy-slides

Education

Georgia Institute of Technology, Atlanta, GA
M.S. in Computer Science (Machine Learning specialization)
Jan - Dec 2025 (Expected)

- **Graduate Teaching Assistant, CS7280 (Network Sciences, OMSCS)**
  - Mentored 200+ students, hosted weekly office hours, and graded assignments.

Stanford Online | NLP with Deep Learning
Sep – Dec 2020

Nanyang Technological University, Singapore
B.Sc. (Hons) in Mathematical Sciences (Applied Math) | Minor in Computing and Data Analysis
Aug 2014 – May 2018

Skills

ML & Data Science	**:** Machine Learning, Deep Learning, Anomaly Detection, Risk Assessment, Data Analysis, Data Visualization (Tableau, Plotly, Matplotlib, Bokeh), Flask, Kafka
Tools & Technologies	**:** Python, C++, Java, JavaScript, SQL, NoSQL, Neo4j, Docker, Git, AWS, GCP
Web3 & Blockchain	**:** Solidity, Smart Contracts, IPFS
FinTech & Compliance	**:** KYB/KYC Compliance, Online Payment Systems, Fraud Detection, Risk Scoring
Language	**:** English (professional), Chinese (native), Malay (intermediate)