

ANDRE SHEN

PROFESSIONAL SUMMARY

With over **22 years of experience** at the intersection of **AI, full-stack engineering, trading systems, and blockchain** innovation, I specialize in transforming complex ideas into scalable, real-world solutions.

WORK HISTORY

SENIOR SOFTWARE ENGINEER 05/2026 to Present

Ford Motor Company, Los Angeles, CA, Remote, Contract

- Building scalable AI-driven platforms for predictive analytics and automation.
- Designing machine learning pipelines using Python, TensorFlow, and distributed processing frameworks.
- Implementing backend services in microservices architecture using FastAPI and Docker-based deployment pipelines on AWS.
- Engineering data ingestion systems capable of processing large-scale streaming datasets using Apache Kafka and Spark.
- Integrating AI models into production APIs, ensuring real-time inference with optimized response times under heavy traffic.

SENIOR SOFTWARE ENGINEER 12/2021 to 04/2026

Ford Pro, Los Angeles, CA, Remote, Contract

- Designed and implemented low-latency microservices in C++ and Python to process real-time market data feeds from multiple exchanges.
- Built order routing systems integrated with FIX protocol gateways, ensuring sub-millisecond execution performance.
- Developed risk management engines that evaluated exposure and volatility in real time using streaming data pipelines.
- Optimized system throughput by redesigning thread management and memory allocation strategies, reducing execution latency by over 40%.
- Collaborated closely with quant researchers to translate trading strategies into production-ready algorithms.

SENIOR SOFTWARE ENGINEER 07/2020 to 12/2021

Windsor Fashions, Santa Fe Springs, California

- Built enterprise-grade SaaS platforms used by global clients.
- Developed scalable frontend applications using React and Angular with a focus on performance optimization and reusable component architecture.
- Built RESTful and GraphQL APIs using .NET and Node.js, integrated with SQL and NoSQL databases.
- Designed CI/CD pipelines using Jenkins and GitHub Actions, enabling automated deployments across multi-cloud environments.
- Worked on system modernization projects, migrating monolithic legacy systems into microservices-based architectures.
- Implemented authentication systems using OAuth2, JWT, and enterprise-grade security standards.

SENIOR SOFTWARE ENGINEER 04/2018 to 07/2020**Paper Mart**, Orange, California

- Built security into new product features to achieve 100% compliance with industry best practices.
- Collaborated with external programmers to coordinate delivery of 6 new software applications.
- Developed hundreds of smart contracts deployed on main net, and audited 1000+.
- Experienced with multiple Blockchain Technology platforms (Ethereum/BSC/Cosmos/Polygon/Ripple/Solana).
- Developing 20+ Dapps' using HTML5, CSS, JavaScript, React.js, Angular, Node.js, and Web3.
- Participated in 3 NFT Marketplace development, and played an important role in development.
- Led 7 backend services and infrastructure successfully, to power core blockchain-based products.
- Maintained customer satisfaction with forward-thinking strategies focused on addressing customer needs and resolving concerns.

SENIOR APPLICATION ENGINEER 06/2009 to 04/2018**Newegg**, City of Industry, CA

- Led and managed a team of 7 developers, including 3 Frontend developers, 3 Backend developers and 1 DevOps.
- Participated in 300+ code reviews to ensure code quality and receive mentoring from senior developers.
- Maintained 100% 5star rating in 10+ projects.
- Designed, built and automated data flows to save 10+ hours of tedious work per week.
- Gave technical guides to the junior developers twice a week for about 2 and a half years.
- Gained experience with various web development tools including Bower, NPM, Git, Material design, Gulp, and cloud services like AWS, Azure, GCP, Heroku and so on.
- Applied hands on learning and agile development to build a fully MERN stack applications.
- Developed Unit and E2E test cases using Jasmine, Jest, Mocha and Grunt, Node.JS.
- Solved challenging dataset problems by using ideas from distributed computing large-scale design, real-time data processing, data storage, machine learning, and artificial intelligence, so that save 35% of costs for maintaining.
- Redesigned and rebuilt 30+ Company's websites, and resulted in remarkable growth in 10+ startup companies.
- Developed company procedures and guidelines for data analysis and security that increased efficiency by 30% in the first 6 months after implementation

SOFTWARE ENGINEER 06/2006 to 05/2009**Newegg**, City of Industry, CA

- Focused on building modular and scalable web applications for SaaS and enterprise clients.
- Contributed to the development of responsive frontend interfaces using React and TypeScript, ensuring cross-browser compatibility and performance optimization.
- Implemented RESTful APIs using Node.js and Express, supporting secure authentication and role-based access control.
- Worked with PostgreSQL and Redis for data modeling, caching strategies, and query optimization to improve system responsiveness.

- Participated in Agile development cycles, including sprint planning, code reviews, and CI/CD pipeline integration using GitHub Actions.

SOFTWARE ENGINEER 06/2004 to 04/2006

Sefonsoft, Chengdu, Sichuan, China

- Used React& Redux/Angular JS & NgRx /VueJS to make Reactive Frontend of 5 projects by improving the overall UX, simplifying the project structure and emphasizing reusability & scalability. Built HIS software solution on microservice which solve many issues with managing hospital information using Vue.js, Rest API and Express.js.
- Developed and deployed a web app to replace a legacy volunteer recruitment website. Used React and Node.js in conjunction with Bootstrap. This resulted in a 50% increase in customer conversion.
- Reduced project development times by over 60 hours by building reusable components and templates.
- Introduced TDD methodology and proposed leveraging Scrum to shorten release times by 40% and improve code quality.
- Gained experience working remotely with a small team of engineers and project managers.

Core Technical Expertise

- AI/ML Engineering & Data Pipelines (TensorFlow, Kafka, Spark)
- Full Stack Development (React, Angular, Node.js, .NET, Python)
- Blockchain Development (Solidity, Web3, DeFi systems)
- High-Frequency Trading Systems & Low-Latency Architecture
- Distributed Systems & Microservices Architecture
- Cloud Infrastructure (AWS, Azure, Docker, Kubernetes)
- Database Systems (PostgreSQL, MongoDB, Redis, MySQL)
- System Design, Performance Tuning, and Scalability Engineering

EDUCATION

Chengdu University of Information Technology, Chengdu, China
Bachelor of Science, Computer Science, 2000-2004

LANGUAGES

English


Professional

Chinese (Mandarin)


Native or Bilingual

HOBBIES

Driving, Cycling, Swimming, Football, Esports