

Yuanlong Zhou

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PROFILE

- ✧ Self-motivated graduate student learning Computer Science at Texas A&M University, solid knowledge in technical and financial fundamentals with practical experience in Full-Stack DevOps (Web/Mobile/PC), Cloud Platforms and Microservices (SaaS).

EDUCATION

Texas A&M University | College Station, Texas, USA

Aug 2023 – Dec 2024

Master of Science in Computer Science

In Progress

- ❖ Courses: Software Engineering, System Architecture, Deep Learning (AI), Algorithm, Distributed Computing and Database.

Sichuan University | Chengdu, Sichuan, China

Sep 2019 – July 2023

Bachelor of Engineering in Computer Science & Financial Engineering (Dual-degree)

GPA: 3.8 / 4.0

- ❖ Courses: Object-Oriented Programming (C++, Java, Python), OS, Network, Compilers, Graphics, Maths, Statistics, Quantitative.

EXPERIENCE

Dots Rhythm Technology Co., Ltd | Nanjing, China

Aug 2022 – Aug 2023

E-Commerce Intelligent Recommendations Web System, Software Engineer Intern

- Constructed and maintained C/S resources to provide recommendation services for 10,000+users, optimized complexity and loading balance on Amazon Web Services (EC2, S3, DevOps tools), culminating in a 56% boost in large-volume computing capacities.
- Executed Java EE specifications (Servlet, JSP, DAO, EL, WebSocket), adhered to Spring MVC framework with Vue, React, NoSQL (Redis and MongoDB), integrated containers (Docker, Kubernetes) in CI/CD pipelines to deploy a robust and scalable architecture.
- Adopted Postman, Ajax, and Apache Tomcat to design and test RESTful APIs, took Lambda Architecture to handle batch processing and real-time transmission, ensuring seamless and error-proof data synchronization with a notable 60% reduction in latency.

Business AI Lab | Nanyang Technological University, Singapore

July 2022 – Dec 2022

Integrated Machine Learning System for Financial Risk Management, Research Assistant

- Employed an array of Machine Learning algorithms (SVM, RF, Bayesian, LSTM, Gradient Boost, Transformer) to the optimization of Financial Models (Investment, Portfolio, Pricing, Risk, Cash-flow), explaining 86+% risk factors for CSI 300 stocks and options.
- Translated mathematical logic in code with parameter adjustment methods (Random/Grid Search, Genetic Algorithms, Step Decay) to achieve a 33% performance enhancement above baseline. Conducted model synergy analyses and delved into evaluation metrics (PDP-ICE, AUC-ROC, Confusion Matrix, and SHAP), bolstering generalization and adaptability across diverse business scenarios.

HUAWEI Student Developer | Chengdu, China

Sep 2021 – Sep 2022

Transformative Mental Health System in Metaverse, Technical Program Manager

- Delivered virtual treatment services by creating immersive environments in Metaverse (VR/AR suites) to mitigate emotional issues.
- Conceived and engineered a game rendering framework using Convex Optimization (Gradient Descent, BFGS) and 3D Path-finding algorithms (A*, Roadmap), integrating GPU parallel computations (Linear Algebra) within refined Unity3D & OpenGL pipelines.
- Collaborated in Agile / Test-driven development cycles, exerted Versioning Tools (Plastic SCM, Git, SVN) to reduce release time.

National Innovation and Entrepreneurship Competition | Sichuan University, China

Sep 2020 – Dec 2021

Automatic Analysis System for Industry Data Anomalies, Independent Researcher

- Spearheaded the data-driven research process with unit testing and continuous integration, leveraged influxDB, Node.js to automate analytical workflows of large-scale data stream for 3,000+ entries (>120GB), reaching an 85% interpretability for data anomalies.
- Enforced Numpy/Pandas, Sklearn/Pytorch/TF and visualization libraries with mixed modeling, query optimization, cross validation, bootstrap, and time series analysis tools. Built SSL/TLS channels to secure effective decision-making on time-sensitive information.

CERTIFICATES

- Dual National Prizes of College Students' Innovation and Entrepreneurship Competition
- Gold Award of the 7th "Internet+" Competition and Challenge Cup Competition
- Meritorious Winner of the Mathematical / Interdisciplinary Contest in Modelling (MCM/ICM)
- Blue Bridge Cup of National Software and Information Technology Professionals
- 4 Copyrights and 2 Patents for Pioneering Software Intellectual Properties (without restrictive obligations)

SKILLS

- Languages: Mandarin (Native), English (Fluent); Values: Proactive, Ownership, Work Ethic, Organizational, Learning Agility.
- Coding Languages: C/C++, Java, Python, C#, Go, Swift, SQL, JavaScript, HTML, CSS, Verilog, Perl, VBA, R, SAS, Ruby, etc.
- Software: Adobe Acrobat, MS Office (Word, Excel macros, PPT), Google Drive, GitHub, Power BI, Matlab, SPSS, AWS, Azure, GCP, LaTeX, Oracle, Figma, VMware, Stata, Tibco, Angular, Shell, Linux (Red Hat, Ubuntu), Tableau, IntelliJ, VS Code, etc.