James Wong, PhD Candidate, MS CS

Building future ML/LLMs @ AMD/Lamini AI, Oracle, Intel, Cisco, UMich, NUS

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US Citizen

SUMMARY

Machine Learning Engineer with deep expertise in AI infrastructure, specializing in LLM fine-tuning and inference scalability, Led development of fine-tuning, classifier, and agentic AI platforms while managing a high-performance GPU data center and optimizing production systems with tools like vLLM, Ray, and Llama Factory.

EDUCATION

-PhD Candidate, MS, Computer Science, University of Michigan
-MS, Electrical Engineering, National University of Singapore
-BS, Electrical Engineering and Computer Science, National University of Malaysia

SKILLS

-AI/ML: PyTorch, Transformers, LLM, vLLM, Ray, Llama Factory, Slurm, MPI
-Languages: Python, JavaScript, Java, C
-MLOps: Kubernetes, Docker, Helm, CI/CD, Ansible
-Cloud: AWS, Azure, GCP
-Monitoring: Grafana, Prometheus
-Databases: SQL, NoSQL
-Frontend: React, Tailwind
-Hardware: Verilog, Virtuoso, Xcellium, RTL, CAD, SoC, JAG

LANGUAGE

English, Chinese

EXPERIENCE

Machine Learning Engineer/Architect, AMD acquisition/Lamini.ai, Menlo Park, CA (2024-Present)
-Engineered distributed inference and training for LLMs using vLLM, Ray, Kubernetes, and Slurm.
-Developed an LLM platform with memory optimization and reducing hallucinations.
-Managed GPU data center and clouds (AWS, GCP, Azure) for training and inference workloads.
-Worked on LLM platforms for Text2SQL, Factual QA, Classification, RAG, and agentic pipelines.

Project Lead, Open Compute Project, Santa Clara, CA, (2020-Present), open-source/part-time
-Co-led chiplet data format standardization (CDXML), contributing to a faster integration process in heterogeneous systems.
-Developed interoperability standards for 3DIC and chiplet-based systems, improving cross-vendor compatibility and reducing development cycle times.

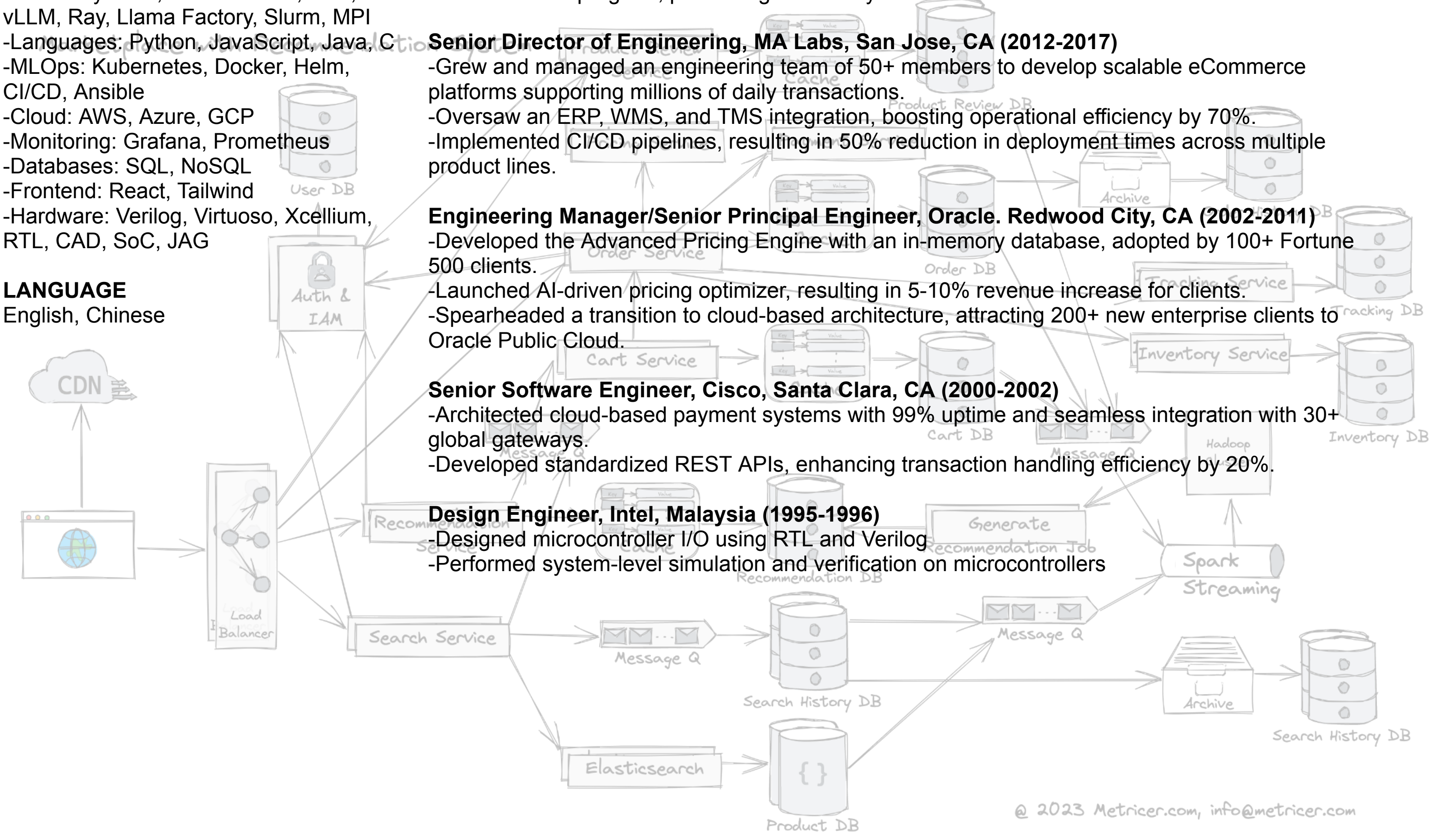
Head of Engineering/CTO, zGlue, Palo Alto, CA (2017-2023)
-Spearheaded the award-winning "ChipBuilder" EDA tool with automated place-and-route and verification tools, reducing design time by an estimated 40%.
-Launched a chiplet marketplace with an ML-driven recommendation system that achieved a 30% improvement in component selection accuracy.
-Directed a cross-functional engineering team, driving 10+ product launches and overseeing the D2D interfaces program, presenting at industry events.

Senior Director of Engineering, MA Labs, San Jose, CA (2012-2017)
-Grew and managed an engineering team of 50+ members to develop scalable eCommerce platforms supporting millions of daily transactions.
-Oversaw an ERP, WMS, and TMS integration, boosting operational efficiency by 70%.
-Implemented CI/CD pipelines, resulting in 50% reduction in deployment times across multiple product lines.

Engineering Manager/Senior Principal Engineer, Oracle. Redwood City, CA (2002-2011)
-Developed the Advanced Pricing Engine with an in-memory database, adopted by 100+ Fortune 500 clients.
-Launched AI-driven pricing optimizer, resulting in 5-10% revenue increase for clients.
-Spearheaded a transition to cloud-based architecture, attracting 200+ new enterprise clients to Oracle Public Cloud.

Senior Software Engineer, Cisco, Santa Clara, CA (2000-2002)
-Architected cloud-based payment systems with 99% uptime and seamless integration with 30+ global gateways.
-Developed standardized REST APIs, enhancing transaction handling efficiency by 20%.

Design Engineer, Intel, Malaysia (1995-1996)
-Designed microcontroller I/O using RTL and Verilog
-Performed system-level simulation and verification on microcontrollers



PUBLICATION

https://scholar.google.com/citations?user=BpdqLXIAAAAJ&hl=en

-Banishing LLM Hallucinations Requires Rethinking Generalization. James Wong, et al. 2024

-Electrical Interfaces Performance Metrics. James Wong, et al. OCP White Paper 2024

-Die-to-Die Chiplet Interface Testing, James Wong, et al. OCP White Paper 2024 · Feb 13, 2024

-Open Platform for Chiplet Development and Bring-up. James Wong, et al. Chiplet Summit 2024

-Functional Simulation and Verification Workflow for Chiplet-based Systems. James Wong. Chiplet Summit 2024

-Guide to Integration Workflows for Heterogeneous Chiplet Systems. James Wong, et al. OCP White Paper, 2023

-Business Analysis of Chiplet-Based Systems and Technology. James Wong, et al. OCP White Paper, 2023

-Panel: Innovating in the Open Chiplet Economy. James Wong, et al. OCP Global Summit 2023

-Chiplet Design and Verification Using An Open Standard Markup Language. James Wong, et al. DAC 2023

-Using a Markup Language in Chiplet-Based Design. James Wong. Chiplet Summit. 2023

-CDXML - Chiplet Data Exchange Markup Language. James Wong, et al. OCP Global Summit, 2022

-Design of Heterogeneous Integrated Circuits - Chiplets and Models. James Wong, et al. MEPTEC Report, Fall 2021

-Proposed Standardization of Chiplet Modesl for Heterogenous Integrated. James Wong, et al. OCP White Paper, 2021

-Proposed Standardization of Heterogenous Integrated Chiplet Models, James Wong, et al. IEEE International 3D Systems Integration Conference, 2021

-Oracle Advanced Pricing Engine. Hockshan Wong, et al. User's Guide, 2006

-Oracle Advanced Pricing Engine Implementation Manual. Hockshan Wong, et al. Oracle, 2006

-Improving distributed control coordination using application semanticsImproving distributed control coordination using application semantics. Hockshan Wong et al. 7th Semi-Annual Technical Advisory Committee Meeting, NFS Engineering Research Center for Reconfigurable Machining Systems, Ann Arbor, Michigan, Feb 13, 2000

-Distributed Control System with a State Observer to Decrease Communication. Hockshan Wong, el al. Japan-USA Symposium on Flexible Automation, Ann Arbor, Michigan, Feb 1, 2000

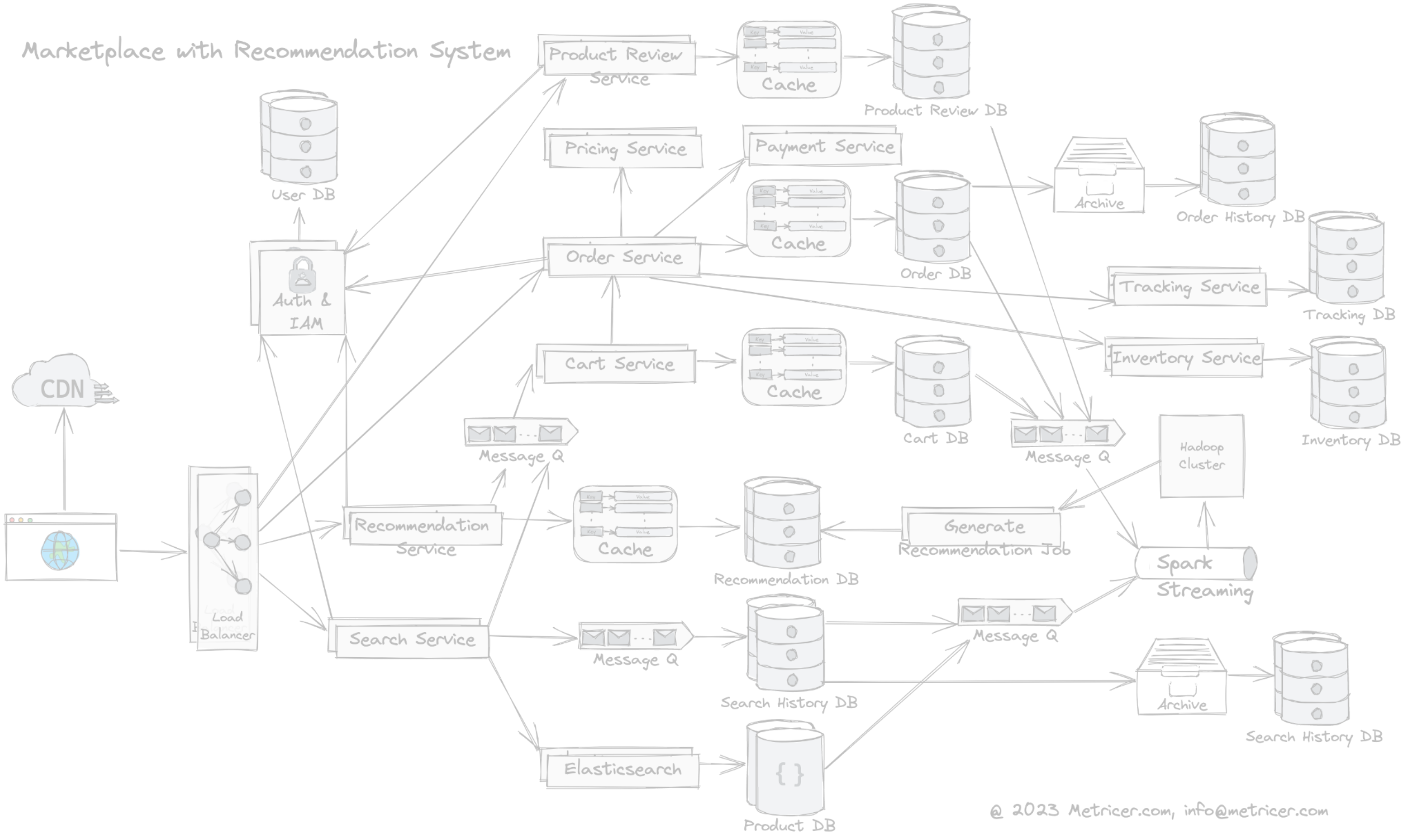
-Trading Computation For Bandwidth: State Estimators For Reduced Communication In Distributed Control Systems. Hockshan Wong et al. 2000 Japan-USA Symposium on Flexible Automation

-Personalized Bidding Agents for Online Auctions. Hockshan Wong, et al. Proceedings of The 5th International Conference on the Practical Application of Intelligent Agents and Multi-Agents, 2000

-Agents Participating in Internet Auctions. Hockshan Wong, et al. Proceedings of the AAAI Workshop on Artificial Intelligence, 1999

-Agent Service for Online Auctions. Hockshan Wong, et al. AAAI, 1999

-Robustness monitoring for PID control systems. Hockshan Wong, et al. IECON, 1998


Marketplace with Recommendation System
Product Review Service
Cache
Product Review DB
User DB
Pricing Service
Payment Service
Archive
Order History DB
Auth & IAM
Order Service
Cache
Order DB
Tracking Service
Tracking DB
Cart Service
Cache
Cart DB
Inventory Service
Inventory DB
CDN
Message Q
Message Q
Hadoop Cluster
Load Balancer
Recommendation Service
Cache
Recommendation DB
Generate Recommendation Job
Spark Streaming
Search Service
Message Q
Search History DB
Message Q
Archive
Search History DB
Elasticsearch
{ }
Product DB
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