James Wong, PhD Candidate, MS CS

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

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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

-Al/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 Al-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=BpdgLXIAAAAJ&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, et 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