

Wan Li

Senior Software Engineer, Google

Mountain View, CA



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About me

L5 Software Engineer at Google with experience across Python & C++, data science and engineering, machine learning, and production infrastructure.

Skills

Programming: Python, C++, Java, Unix, Git, algorithms & data structures

ML: PyTorch, TensorFlow, JAX

Imaging & Graphics: Processing, OpenGL, Adobe Suite

Google specific skills: Boq/Pod, Apps Framework, monitoring & alerting, large distributed system infrastructure, Android and Search environment

Experience

Google

Mar. 2022 - Present

Software Engineer | Discover User Modeling & Content Retrieval

Improve Search Discover quality meaningfully through incorporating a deeper understanding of users' preferences, tastes and interests in retrieval and ranking.

- Design, implement, and deploy the real-time in-session activity personalization model in JAX, along with its training data pipeline
 - Design and implement the model training data generation pipeline
 - Design, implement, and train the JAX model using TPU XManager
 - Serve model inference in production using Uniserve
- Design and implement the training data pipeline for the token model (Qualia) and embedding model (Astria)
- Apply LLMs for user interest understanding and content retrieval
- Build a negative data mining pipeline for the embedding model (Astria)
- Process and optimize user activity data storage

Jan. 2019 - July. 2022

Software Engineer, Site Reliability Engineering | Android SRE

Provides infrastructure support for Android core services, including monitoring, alerting, traffic distribution/optimization, workflow automation, framework setup, etc.

- Migrate the Android Checkin server to Boq, along with other framework migrations
- Own production monitoring and alerting for Android services

Mountain View, CA, US

London, UK

Education

Online Courses and Personal Projects

Personal Projects

Fine-Grained Face Generation

- Built a ~400M-parameter conditional DiT + VAE diffusion model trained on CelebA-HQ, letting users generate faces by toggling 40 facial attributes instead of writing prompts
- Deployed as a Flask web app with GPU/CPU inference (DDPM/DDIM sampling) and Hugging Face model hosting
- GitHub: github.com/wanderly0501/FaceDial-Fine-Grained-Face-Generation

Tech Outlook Agent — Autonomous Tech Update and Chat

Dual-agent system with shared memory/database, exposed via terminal, Flask web UI, and a system-tray desktop app.

- One cron agent crawls tech news website daily, summarizes and clusters articles (TF-IDF + k-means) into a local knowledge base, and auto-generates HTML reports
- One chat agent talks with user with local multi-layer memory, local knowledge base and web-search fallback
- GitHub: github.com/wanderly0501/Tech-Outlook

Notes & Diary App

- Built a cross-platform (web + iOS/Android) note-taking and diary app with Expo/React Native and Supabase (Postgres, Auth, Storage)
- Designed offline-first sync: SQLite-primary storage on mobile with background sync to Supabase, plus a custom rich-text document editor
- GitHub: github.com/wanderly0501/Tide-Notes-Diary

Stanford
Online

Deep Learning for Computer Vision

- CNNs, RNNs & Transformer architectures for vision
- Image classification, detection, segmentation & captioning
- Final project training Masked ViT with guidance from DINO attention map

Deep Generative Models

- Score-based & Diffusion Models
- Autoregressive Models, GANs & Energy-Based Models

Udacity

Natural Language Processing Nanodegree

- Build a deep neural network that functions as part of an end-to-end automatic speech recognition (ASR) pipeline

Machine Learning Engineer Nanodegree

- Semantic Segmentation for Road Detection
 - Created and trained Fully Convolutional Network using TensorFlow
- Architecture Picture Classification with CNNs
 - Collect pics and created the datasets for training and validation
 - Created and trained Convolutional Neural Networks with transfer learning to classify building styles.

Princeton University

Princeton, US

Class of
2016

Master | Architecture

- Computing & Robotics
 - Use Processing to create and simulate agents that move and interact
 - Sensor fusion with Arduino and program robotic agent to move in real space
- Robotic Fabrication
 - Program robotic arm to fabricate designed geometry with chemical reaction
- 3D cloud points reconstruction, simulation and rendering for video

Tsinghua University

Beijing, China

Class of
2013

Bachelor | Architecture

- Parametric Design:
 - Write Processing code to generate 3D tree-shaped geometries
- Introduction to Artificial Intelligence:
 - Write algorithms including gradient, genetic algorithms in C to solve problems