

Calvin Pelletier

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Education

M.Eng. in Computer Engineering | University of Illinois at Urbana-Champaign | 2017 - 2018

B.S. in Computer Engineering | University of Illinois at Urbana-Champaign | 2014 - 2017

Experience

Machine Learning Engineer | Meta | 2024 - 2026

- Worked across the PyTorch and Superintelligence organizations on various machine learning projects related to LLM post-training, parameter-efficient fine-tuning, reinforcement learning from verifiable rewards, and synthetic data generation.

Machine Learning Engineer | Resemble AI | 2023 - 2024

- Developed ML infrastructure for text-to-speech and voice conversion.
- Created a novel technique for designing fictitious voices using conditional normalizing flows.

Machine Learning Consultant | VersaFeed | 2023 - 2024

- Guided VersaFeed's adoption of AI in their product data pipelines.

Software Engineer | Google | 2021-2022

- Developed the infrastructure for automated testing of ML models on TPUs.

Founder & CEO | Ahanu AI | 2020-2021

- Led a four-person team to build an AI-based photo editing application. I'm responsible for the ML R&D, infrastructure, and web backend. Short write-up here: pelletier.ai/fluid-photo
- Designed and executed conditional image-to-image translation experiments and productionized a complex system of 11 interconnected ML models.

Software Engineer | Facebook | 2018-2020

- Developed the Search Ads infrastructure using C++ and applied ML.

Software Engineer Intern | Facebook | 2017

- Interned on the Realtime Communication team where I improved the engine underlying video calls.

Production Engineer Intern | Facebook | 2016

- Interned as a hybrid systems/software engineer on the Data Infrastructure Security team.

Awards & Talks

2nd Place, OmniLabel Open-Vocabulary Object Detection Competition | ECCV 2024

- Placed 2nd as an independent two-person team in an international open-vocabulary object detection competition, competing against academic and industry research labs; invited to present our novel technique at ECCV 2024.

Selected Projects

Agentic Development Environment | 2026 - Present

- Developing a coding environment that gives engineers a spatial map of their codebase and AI agents a structured, context-efficient view of it.

Machine Learning Library | 2023

- Developed an educational AI library built on PyTorch for the purpose of teaching ML.
- Features include: trainers, training hooks, loss functions, inference engine, neural modules, data utilities, experimentation tools, RL utilities, and implementations of major ML papers.
- github.com/calvinpelletier/ai

Computer Vision Alarm Clock | 2018

- Built a fully-automated alarm clock with a Raspberry Pi, breadboard, and RF transmitters/receivers. It uses ML to digest a live video feed and controls a speaker and various lights.

Operating System | 2016

- Created an operating system in C and x86 assembly. I'm responsible for scheduling, the keyboard, the terminal, the RTC, the PIC, system calls, the file system, paging, and interrupts.

Music Composition using Machine Learning | 2015-2016

- Experimented with a variety of techniques including LSTMs to compose music.

12-bit Computer | 2010-2011

- Designed, hand-wired, and programmed (in a custom ISA) a small computer from the logic gate level