Philip Marinov

Autodidactic ML & Systems Researcher

philipm@fastmail.com +1 (415) 867 7848 San Francisco, CA
Github X LinkedIn Blog

Projects

Copy My Write October 2025
Discovered and reported a Windows SCSI command sanitization vulnerability, earning a $3,000 bug bounty reward from Epic Games.
LabGuy94/CopyMyWrite

Exact Latents August 2026
Built and trained a model that compresses Python functions into latent vectors a language model reads back byte-identical, reconstructing 88% of 600 never-seen functions at a quarter of the context cost.
LabGuy94/ExactLatents

IPABrew March 2026
Won Most Creative award at a hackathon for building a local app that reconstructs proto-language forms from IPA cognates, retraining a bidirectional Transformer across 65 languages alongside a LingPy alignment baseline, Flask REST API, and interactive tree editor.
LabGuy94/IPABrew

Diskjacker August 2025
Engineered an exploit demonstrating Hyper-V hypervisor hijacking by abusing unvirtualized access to disks.
LabGuy94/Diskjacker

Experience

Primepoint Labs Hybrid San Mateo
Software Engineer June 2026 – Present

- Architected and trained proprietary ML models for document segmentation and parsing, cutting inference costs by up to 1,000x while improving output quality.
- Shipped full-stack, user-facing production features from scratch.
- Promoted from Software Engineer Intern to Software Engineer within months.

primepoint.ai

Pioneers in Engineering Competition UC Berkeley
Lead Software Engineer December 2024 – December 2025
Won 1st place in the 2025 competition as software lead for my high school robotics team, building the Python infrastructure from scratch with modular control systems and real-time sensor processing.
pioneers.berkeley.edu

Code Tenderloin Remote/San Francisco
Software Intern Summer 2024 and 2025
Taught students Python robotics and HTML/JS web development through structured curriculum, technical mentorship, and hands-on projects.
codetenderloin.org

Education

Sacred Heart Cathedral Preparatory Senior in High School
San Francisco, CA August 2023 – May 2027

Skills

Machine Learning
LLM fine-tuning, custom architectures, object detection, PyTorch, vLLM

Windows Internals / x86-64 Systems
Kernel drivers, system calls, SCSI, Win32 API, Hyper-V, UEFI, page tables

Reverse Engineering
IDA Pro, x64dbg, WinDbg, static/dynamic binary analysis, network/API protocol reversing

Backend Infrastructure
High-throughput automation, Go, Python, distributed APIs, Linux/Windows environments

Languages

C/C++
Advanced

x86 Assembly
Proficient

JavaScript
Proficient

Python
Proficient

Publications

Personal Blog
Technical blog covering vulnerability research, Windows internals, and custom machine learning experiments.
readcc.net

Early Days Portfolio
2018
Archive of early programming projects dating back to 2018, exploring canvas graphics, trigonometry, and core web fundamentals.
hangar118.sdf.org/w/