# **Tom Pollak**

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#### **EXPERIENCE**

Cisco Meraki

June 2023 - Present

ML Software Engineer – Camera Intelligence Team

Remote, UK

- Independently researched, designed, & implemented a novel unified search experience with a single model.
- Project is set be the "market differentiator" for the entire MV product line and was demoed at Cisco Live 2024.
- Current Technical lead of a team of 6 engineers & 2 managers to get the project in production with highest priority.
- Also lead a team at the Cisco San Francisco Hackweek 2023 for preliminary work on the project.
- Developed a 10K LOC C++ library, with full testing suite & benchmarks in GTest.
- · Created quantized edge device inference equivalent to the original with minimal quantization error.
- Collected and curated a high-quality dataset of >50K images. Finetuned a SigLIP text encoder to align NLP queries.
- Originally hired as a summer intern in 2022, rejoined full-time in 2023. Intern Reference (Related project)

### **EDUCATION**

University of York June 2023

BEng. Computer Science - First Class Honours

Lady Manners School 2020

A-Level - Further Maths (A), Maths (A), Computer Science (A), Physics (A)

## **PROJECTS**

# Interpretability Research

July 2024 - Present

https://github.com/tom-pollak/interpretability-culture

• Working on interpretability research in my spare time. Completing ARENA 3.0 and applied to MATS program.

Claudette Pydantic July 2024

https://github.com/tom-pollak/claudette-pydantic

• Adds Pydantic structured outputs through tool use for the Claudette library – Example.

## **NLP Image Retrieval with CLIP**

September 2022 - June 2023

https://tom-pollak.github.io/clip-index

• University dissertation project – graded 80%. Built ImageNet CLIP search. Eval models, indexes, hyperparameters.

## **Automated Horse Betting Software**

December 2020 - July 2021

https://github.com/tom-pollak/each-way-matcher

- Discovers undervalued horses in each-way betting by exploiting bookmaker "place" odds.
- Uses an adapted Kelly Criterion strategy to calculate the optimal stake.
- Calculates conditional probability of a horse finishing in a given place using the win odds of all horses.

# **Poker Web Application**

April 2019 - July 2020

https://github.com/tom-pollak/web-poker

• Free live poker web app, users can create accounts and tables, play poker, and chat with other players.

### **COURSES**

Mastering LLMs June 2024

# SANS Institute - FOR500 Windows Forensic Analysis

August 2020

**SKILLS** 

Languages Python, C++, Cuda C.

ML PyTorch, Huggingface, Pydantic, Axolotl, llama.cpp, einops, scikit-learn.

Tools Linux, VSCode, Neovim, Docker, Git, SQLite, LATEX.