Machine Learning London

SELECTED PROJECTS

Advertising projects

Advertising – Ranking

Ranking's mission is to make meaningful connections between businesses and people. Ads and Product Ranking enables this by building predictive models delivering the most relevant ads and products to billions of people across Facebook and Instagram. We're deploying some of the largest and most powerful production ML systems to optimize personalisation, brand awareness and work on causal inference for measuring.

Advertising – Offline Solutions

The Offline Conversion team helps businesses that transact offline to thrive. We do this by offering formats, optimizations and measurement that drive the right customers to the right businesses. The team is trying to solve one of the hardest problems in advertising: building online solutions to drive and measure outcomes in the real world.

Business Integrity

Our mission is to protect businesses and people from fraud and bad actors. We build the best fraud detection and measurement technology in the industry, increasing advertiser and user value. Reducing fraud requires solving complex problems in product, data and analytics, infrastructure and ML.

Community Integrity

Account Integrity

The Account Integrity team build systems to protect the Facebook community from abusive accounts. We work on clustering systems to find bad actors and classifiers that detect fake and hijacked accounts. We push changes to production dozens of times per day using our Haskell-based rule engine.

Harmful Behaviour

The Harmful Behaviour team is focused on detecting and remediating harm from low frequency, high intensity abuse by manually driven nefarious actors. We're constantly classifying and evaluating accounts and interactions to identify a variety of potential abuses such as fraud and criminal activity.

Health Integrity

Health Integrity is a team focused on detecting health-related misinformation on our platform and developing systems to scale fact checking and labelling in partnership with third party fact checking network. Currently, the team is focused on preventing the spread of misinformation that can lead to real world harm, such as fake cures or fake treatments for COVID-19 as well as hoaxes that have been widely debunked by reliable third party fact-checkers.

Identity Integrity

The Identity Integrity group (II) at Facebook is responsible for building the internal platform that allows various Facebook products to verify user identity (payments, political ads, locked out accounts and more). II use state of the art ML and computer vision techniques that allow us to automatically process ID document submissions at scale, detect image tampering and other types of fraud committed by motivated and skillful adversaries. As an ML and/or CV engineer at Identity Integrity you will be responsible for developing new algorithms, training models and working with large datasets to improve our identity verification and fraud detection systems.

WhatsApp and Workplace

WhatsApp Integrity

The mission of WhatsApp Integrity is to fight abuse on WhatsApp, while respecting end-to-end encryption. Since our access to content on the platform is restricted, we must instead develop ML models to identify scams, spam, real world harmful problems, compromised accounts, and more, based mostly only on diverse behavior signals.

Workplace

Workplace is Facebook's fast growing enterprise collaboration and communication platform, with six million paid monthly users. The AI and ML used in Workplace aims to turn companies into communities and make working more efficient. ML and AI are used in a broad range of contexts from News Feed Ranking, bots, auto translation tools and more.

Research

Integrity

AI plays an integral role in keeping policy violating content off of Facebook. We've made strategic investments in core technologies, like computer vision and language understanding, over the years and continue applying these at scale to proactively detect and remove bad actors.

PyTorch

PyTorch is the deep learning framework that is used in the majority of all AI research and is fast becoming Facebook's primary AI platform in production. Externally, PyTorch is a fantastically popular open source project, used by tech companies and researchers around the world. The future of AI, at Facebook and in the world, is going to be powered by the technology and libraries we are building in the PyTorch team.

Language and translation technologies

Our team of Research Scientists and Engineers pushes forward the state of the art in Machine Translation, Cross-Lingual Language Understanding (XLU), Representation Learning, and Natural Language Understanding. We build platforms like the open-source PyText and Translate along with internal services such as Language Identification and Machine Translation to support our technology and share it with Facebook and the wider NLP community.