

# Arun Dunna

Software / Security Engineer

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<https://adunna.me> | [adunna@pm.me](mailto:adunna@pm.me)

## Experience

**Meta Platforms, Inc. (*Facebook*)** | Software Engineer *Remote, USA* | Sep 2023 – Current

- Top performing SWE in Social Impact Products (SIP) Fundraising, building nonprofit infrastructure on FB & IG.
- Lead integrity & security in SIP, spanning product abuse & financial fraud. Built fraud & abuse prevention systems.
- Designed & built key product features, *e.g.* donation processing fee coverage recovering > \$10.3M/yr in donations.
- Planned and executed key compliance work for SIP, *e.g.* DMA compliance and FB Payments relocation comms.
- Removed key product launch blockers, both internally and cross-company with PayPal. Top SIP incident responder.
- STO for multiple internal Fundraising initiatives, *e.g.* product quality, SLAs, and organizational structure.

**Meta Platforms, Inc. (*Facebook*)** | Security Engineer *Remote, USA* | Apr 2022 – Sep 2023

- Vulnerability research on internal and external software/hardware. Compiled reports (*e.g.* vulns, attack vectors, and fixes/improvements) and worked with PoCs to implement fixes.
- Lead security assessments involving internal and external PoCs, and managed other engineers on assessments.
- Built and maintained internal tooling (*e.g.* assessment and artifact tracker, deep permission checker across Meta, and others), and improved documentation and workflows for Security organization and Offensive Security Group.
- Took ownership of and cleaned/maintained multiple security oncalls. Built internal process for mentorship between senior and junior engineers in offensive security. Improved assessment prioritization framework for business goals.

**Champria (*Startup*)** | Consulting CTO *Remote, USA* | Sep 2021 – Feb 2022

- Designed and built foundations for infrastructure, products, and tech stack, then oversaw all development. System design and tech stack for all tech aspects, *e.g.* web products, infrastructure hosted on AWS using HashiCorp products for orchestration, custom-built CI/CD pipelines, robust GraphQL-based APIs for both internal and external use, high-performance database architectures with Postgres, and significant internal tooling.
- Worked with CEO, growth & design departments to rollout iterations of company's Esports analytics platform.
- Wrote all company technical guidelines, *e.g.* engineer performance review process and documentation guidelines.
- Managed lead engineer & 5 software engineers, incl. advising, performance improvement plans, and code reviews.

**Yext, Inc.** | Software Engineer *Washington, D.C.* | Jan 2021 – Apr 2022

- Built pipeline and React-based UI for managing and deploying models used in search engine product “Answers”. Handled roughly 800 models across 16 environments, with an average latency of  $\approx 20$ ms per model query.
- Optimized Java services Query Suggest and Spell Check, reducing build opex by 90% and query latency by 98%.
- Built and deployed Query Reranking product feature, drastically improving search result CTR.
- Built migration tooling in Go to automate move from internal systems to HashiCorp products.
- Responded to incidents and vulnerabilities, such as product outages and the Log4j zero-day Log4Shell.

**University of Massachusetts Amherst** | Course Instructor *Amherst, MA* | Jan 2019 – Dec 2020

- Wrote & taught courses *Digital Forensics*, *Intro. to Unix*, and *CS First Year Seminar*. Managed 12 TAs and UCAs.

**Facebook, Inc.** | Security Engineering Intern *Remote, USA* | May 2020 – Aug 2020

**IIJ Innovation Institute Research Lab** | Research Intern *Tokyo, JP* | Jun 2019 – Aug 2019

**University of Massachusetts Amherst** | Research Assistant *Amherst, MA* | May 2017 – Dec 2020

## Education

**University of Massachusetts Amherst** *Amherst, MA*

M.S. Computer Science *May 2018 – Dec 2020*

B.S. Computer Science, *Minor: Mathematics* *Aug 2016 – May 2018*

## Publications

1. **Bringing Transparency to YouTube's Demonetization Algorithms** *ACM CSCW*, Nov 2022
2. **Sanitizing a View of Consumer Broadband in the United States** *TMA*, Jun 2020
3. **Characterizing the Deployment and Performance of Multi-CDNs** *ACM IMC*, Oct 2018
4. **Analyzing China's Blocking of Unpublished Tor Bridges** *USENIX FOCI*, Aug 2018

## Skills

- **Languages:** C++, CSS, Go, GraphQL, Hack, HTML, Java, JS, Lua, PHP, Python, R, Rust, SQL, TypeScript
- **Platforms:** Android, iOS, MacOS, Unix & Unix-like, Web (Django, Flask, NextJS, Node, React), Windows
- **Specializations:** Censorship systems, full-stack development, Internet policy, Internet measurement, machine learning, ML pipelines, networks, product work, research, security, software engineering, Unix & Unix-like systems