ASAD SALMAN

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EDUCATION

Northeastern University   Boston, MA
Masters in Cybersecurity   Sep 2018 - May 2020
Selected coursework: Distributed Systems, Software Vulnerabilities, Network Security

National University of Science and Technology   Islamabad, Pakistan
Bachelors in Software Engineering   Sep 2014 - June 2018

SKILLS

Programming Languages:	Kotlin, Java, Scala, Python, JavaScript, PHP, C++, C
Mobile Development:	Android
Operating Systems:	Linux, macOS, Windows
Web Development:	AngularJS, Bootstrap
Big Data:	Spark
Database:	MySQL, CouchDB
Misc:	Bazel, Gradle, AWS EC2, Docker, Bash, LaTeX, Git, Serverless development

EXPERIENCE

Twitter / X *Software Engineer II*   March 2022 - Present
I work on various aspects of Twitter's security infrastructure including: PKI certificates automation, service authentication/authorization, end-to-end encrypted DMs. Everyday work involves:

- writing and maintaining large-scale distributed services
- writing scripts to automate manual processes
- mentoring junior engineers on the team
- writing design docs
- providing security related support to other engineers in the company
- debugging clients and services deployed in a variety of settings

I previously worked in the Privacy organization at Twitter, where I wrote software to automate the privacy compliance processes in the company.

eBay *Software Engineer III*   Sep 2021 - March 2022
            Software Engineer II   June 2020 - Aug 2021
Part of the internal tools team, I wrote tools that made Android testing faster and more effective. One project I spearheaded reduced pull request testing duration by ∼40%. This project involved writing tools from scratch, contributing to public open-source projects and integrating into large codebases.

Northeastern University *Research Assistant*   Sep 2018 - May 2020
Worked on quantifying network properties of the Ethereum peer-to-peer network, and their effect on the security of the blockchain. Worked with Prof. Cristina Nita-Rotaru.
Published paper in FC'21: `https://asad.co/pub/ethereum-financial-crypto.pdf`

NUST - School of EE & CS *Research Assistant*   June 2017 - August 2018
Devised and implemented schemes to protect the Bitcoin protocol from certain DoS Attacks. Project involved using Bloom Filters to replace memory-heavy lookup operations performed on incoming transactions on Bitcoin nodes.

Google Summer of Code - GNU Project   Summer 2017
Wrote a V8 Engine wrapper in C++ for GNU's Ring, an open-source, distributed, privacy-preserving calling app. At the end of the project, the previously OS-specific application could be deployed on any platform that supports running NodeJS using Electron framework. Later went on to write an Ethereum-based, distributed nameservice for the same project.

Tranchulas *Cybersecurity Intern*   Summer 2016
Learnt about penetration testing and application security. Practiced through hacking competitions (CTFs). Also, covered forensics, and lock picking.