Atyansh Jaiswal

SOFTWARE ENGINEER · SECURITY RESEARCHER

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Work Experience

∞ Meta — Privacy Infrastructure　　　　　　　　　　　　　　　　　　*Menlo Park, CA*
SOFTWARE ENGINEER　　　　　　　　　　　　　　　　　　　　　　　　*August 2017 - Present*
- Focusing on detecting and mitigating large scale scraping attacks on Facebook
- Build systems to observe, classify, and mitigate botted activity
- Understanding attacker intent, measuring signals, deducing patterns, and engineering features out of them
- Primarily using **Haskell**, **Hack**, and **Python**

∞ Meta — Ads Signals　　　　　　　　　　　　　　　　　　　　　　　*Menlo Park, CA*
SOFTWARE ENGINEERING INTERN　　　　　　　　　　　　　　　　　　　　　*Summer 2016*
- Integrated real time aggregations for conversion optimization
- Worked on **C++** backend to ingest data and perform aggregations
- Implemented **PHP/HACK** endpoint to process API calls
- Created a **React JS** based UI to create aggregation rules
- Wrote a **thrift** service to send conversion data between PHP and C++ backend

∞ Meta — Ads Infrastructure　　　　　　　　　　　　　　　　　　　　*Menlo Park, CA*
SOFTWARE ENGINEERING INTERN　　　　　　　　　　　　　　　　　　　　　　*Fall 2015*
- Created a real time storage solution for an in-house object delivery distributed system in **C++**
- Improved network performance by implementing a more efficient serialization method
- Increased storage efficiency of connection objects in **HDFS** by 30%
- Used an in house real time key value storage system to deliver connection objects

Google　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　*San Bruno, CA*
SOFTWARE ENGINEERING INTERN　　　　　　　　　　　　　　　　　　　　　*Summer 2015*
- Migrated YouTube V3 API from **Java** to **Python** backend
- Improved safety of video fetches across the YouTube backend
- Added improved permission validation support for video fetch requests

ViaSat　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Carlsbad, CA*
SOFTWARE ENGINEERING INTERN　　　　　　　　　　　　　　　　　　　　　*Summer 2014*
- Created a Page Load Metrics Collection and Analysis Framework
- Developed Firefox extension in **JavaScript** to measure web page load times
- Set up **Python Flask** server with **nginx** to ingest page load times
- Set up **ElasticSearch** and **Hadoop** storage systems for page load time analysis

Projects

Saber: Delegating Web Security to Browser　　　　　　　　　　　　　　　　*(Paper)*
GRADUATE RESEARCHER
- Created a prototype **Fetch API** that delegates web requests to Google Chrome
- Provide secure **TLS** connections to client applications without requiring any security expertise
- Also provide **strict transport security**, **public-key pinning**, and **revocation checking** for free

Multiplayer Brawler　　　　　　　　　　　　　　　　　　　　　　　*(Video Game)*
GAME DEVELOPER
- Created a 3D online multiplayer brawler in **C++**
- Built network engine using **Boost Asio**, server-client communication using **Google protobufs**, and physics engine using **Bullet**

Education

BS/MS in Computer Science　　　　　　　　　　　　　　　　　　　　　*San Diego, CA*
UNIVERSITY OF CALIFORNIA, SAN DIEGO　　　　　　　　　　　　　　　　　　　*2012-2017*
- **Relevant Coursework—** Software Engineering, Computer Security, Programming Language Theory, Compiler Theory, Operating Systems and Networking, Cryptography, Networked and Distributed Systems
- **Thesis—** Analyzing and addressing the security issues of non-browser web-connected applications

Teaching Assistant　　　　　　　　　　　　　　　　　　　　　　　　*San Diego, CA*
UNIVERSITY OF CALIFORNIA, SAN DIEGO　　　　　　　　　　　　　　　　　　　*2016-2017*
- **Intro to Computer Security—**Control flow hijacking, MITM attacks, XSS, CSRF, JIT Spraying, SSL stripping, privacy
- **Programming Language Theory—**Haskell, lambda calculus, type inference, monads