

# Atyansh Jaiswal

SOFTWARE ENGINEER · SECURITY RESEARCHER

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## Work Experience

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### Facebook — Privacy Infrastructure

SOFTWARE ENGINEER

Menlo Park, CA

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**

### Facebook — Ads Signals

SOFTWARE ENGINEERING INTERN

Menlo Park, CA

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

### Facebook — Ads Infrastructure

SOFTWARE ENGINEERING INTERN

Menlo Park, CA

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



SOFTWARE ENGINEERING INTERN

San Bruno, CA

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

SOFTWARE ENGINEERING INTERN

Carlsbad, CA

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

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### 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

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### 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