Atyansh Jaiswal

Software Engineer · Security Researcher

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Work Experience

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

Google
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

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
University of California, San Diego
San Diego, CA
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
University of California, San Diego
San Diego, CA
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

Fun Stuff

- Top 2% of Project Euler solvers
- ViaSat Intern Hackathon 2014 winner
- Former President of Eve Security at UCSD
- Founder of Secular Student Alliance at UCSD
- Solved over 2500 insane difficulty Sudoku puzzles
- 12-win runs with every single class in Hearthstone Arena