Kirin Rastogi

Software Developer

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Personal Projects

Skills: Java, Python, C++, iOS, AES & RSA implementations, Agile, Node, Mongo, Heroku   Present

- Creating a news site for Carleton University that fetches related news, stores it, and allows voting from the students to create a tailored front page for the school
- Built a Secure LAN Messenger iOS app, with a Node server, and Mongo database that uses encryption to save notes
- Competed in a hackathon with Amazon to create a skill for Alexa to notify the user of nearby events
- Competed in deCODE with Shopify to create a system for storing store credit for users, and modifying their checkout price based on the credit they have for that store
- Created a terminal based chatting application similar to IRC, but with web sockets
- Assembled an anti-virus to scan files and check file hashes with database of flagged hashes to notify of malicious files
- Created an application using a cross-platform engine in C++ to watch Khan Academy videos
- Constructed an iOS app to monitor a beehive with data being uploaded to a server

Experience

Junior Security Analyst | TwelveDot Inc.   Summer 2015 – Present

Skills: iOS Dev, Network monitoring, Embedded Unix Systems, Wi-Fi Pineapple

- Conduct network analysis and detection for malicious activity with GPU accelerated Unix system
- Blacklist addresses using said embedded system with honeypots and brute force detection
- Construct iOS app with interface to cloud server and database. Use for tracking users, and alerts
- Demonstrate and educate about MITM attacks with the Wi-Fi Pineapple to a non-technical audience

Lead Java Server Developer | Yom Network   March 2013 – Fall 2016

Skills: Java, Eclipse, Network IT, Git, Minecraft API

- Implemented a distributed saving system which improved server performance from 16 ticks per sec to 19.9/20
- Reduced complexity time of retrieving data from $O(n)$ to $O(1)$ by implementing efficient data structures
- Developed an anti-cheat for players, and implemented checks for suspicious packets
- Configured firewall to limit access by setting rules on ports, and port forwarding
- Reverse engineered both open-source software and byte-code to modify and implement changes
- Implemented changes based on user feedback which lead to a user-base growth of 30% in 3 months

Android Developer | bv02   Summer 2016

Skills: Android Development, Agile/scrum, Git, Java, Kotlin

- Programmed UX and database integration, sanitized inputs which lead to a cleaner, more secure database
- Worked with issue tracking software to finish features and resolve bugs in a team oriented environment
- Collaborated in a team to create a clean and secure app, with interface to a server, and database

Education

Bachelor of Engineering (B.Eng) with Co-op in Software | Carleton University   Sept 2015 - 2020

- CGPA: 11.0 / 12.0, GPA: 3.67 / 4.00
- Dean's Honour List
- Lester Bowles Pearson Scholarship