Justin Soon

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Programming Projects and Open Source Contributions

• In-toto, software security framework

under Prof. Justin Cappos, May-July 2017

- Secures the integrity of software supply chain by GPG signing each step of software development.
- Worked on integrating in-toto in OpenSUSE linux to increase security of packages.
- Contributed new features, tests to the framework and fixed bugs. Increased code coverage.
- Full specifications and details at in-toto.io

• Autonomous Underwater Vehicle, robotics project

under Prof. K.S. Venkatesh, 2014-2017

- Software Team Head, lead a team of 5 students since August 2015.
- Achieved **2nd place** at national level competition NIOT-SAVe in our debut attempt. (December 2016)
- Using OpenCV for Vision and Gazebo for simulator tests. Built using Robot Operating System.
- Set up Travis CI for automating building and deploying Doxygen docs to github gh-pages.
- Full design report at auviitk.com

• KeyboardNinja ruby on rails game

October 2016

- Online multiplayer typing game. The game is live at keyboardninja.herokuapp.com
- Developed RESTful APIs for creating, joining games and getting result.
- Built using Rails, Coffeescript, Postgres and deployed on Heroku.

• Antaragni Festival App

May-October 2015

- Built the Android application for the golden jubilee of Antaragni, cultural festival of IIT Kanpur.
- Users can view schedule, event details, venue map and contact details of event organizer.
- Notifications, result declaration, reminders are provided through FCM.

• Android C IDE App

under Prof. Amey Karkare, January-April 2015

- Users could write and run interactive C language programs, include standard library.
- Cross compiled tiny c compiler and libraries for different android architectures.

• Startup Weekend

March 2015

- Secured 3rd place for developing a prototype app which helps find people to play sports with.
- After choosing a sport, users could view players on map and chat with all online players.

• Notable Open Source contributions

- Designed 2 customizable website & blog templates for Jekyll. Released under MIT license.
- html-textview, added support for external image downloading libraries.
- Materialistic Hacker News, added option to reload saved page if offline data is cleared.

Technical Skills

Languages

Kotlin, Java, C/C++, Python, Bash, JavaScript, HTML5, CSS

Frameworks/Tools

Android SDK, AngularJS, Rails, ROS, OpenCV, Bootstrap, Jekyll, Jenkins, Docker

Positions of Responsibility

• Google Developer Group Lead Coordinator

2015-2016

- Taught more than 15 sessions on Android, including tutorials for Software Architecture (CS654).
- Guided about 80 people through Google Study Jam and CS for Android online courses.

• Student Guide

2015-2016

- Helped 7 new students while they familiarize with the rigours of college life.

• Mentoring Projects

- Facilitated 3 students in various robotics club projects and 6 students in programming club project.
- Member of Navya, FLOSS group. Mentored 5 students in contributing to open source.

Extracurricular activities

- Secured 1st place in intra-college tournament Josh chess 2015. Part of college chess team 2014.
- All Rating Chess Tournament 2012, secured 56th place amongst 200 participants.
- Secured 2nd position in Basketball in Freshers Inferno in 2014, intra-college sports event.
- Secured 2nd position in Lucknow Zonal BasketBall Championship 2013.