Shikher Verma

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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 the software developement.
  - 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 & Prof. Sachin Shinde, 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 India 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.