

# Praveen Kumar Pendyala

Android developer | Linux enthusiast | Web hobbyist

## Info

<http://pkp.io>  
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## Skills

### Programming

Java, PHP, Kernel C,  
Python, JavaScript,  
Octave, Verilog

### Web

AngularJS, HTML5,  
REST APIs, Bootstrap,  
MVCs, Bower

### Android

Retrofit, Volley,  
Picasso, Material  
Design, Play Services

### Tools

Git, SVN, MySQL,  
Asterisk, Xilinx ISE,  
Jekyll, L<sup>A</sup>T<sub>E</sub>X, Moodle

### Platforms

Linux, Windows, Mac  
OSX, Beaglebone,  
Google App Engine

## Note

Only included the most recent and major accomplishments in each section. For complete list, please refer to the web links in info section.

## Education

- 2014-2016 **Masters**, Distributed Software Systems Technische Universität Darmstadt  
*GPA of 3.5 out of 4.0 in US grading – converted from 1.50 in German grading.*
- 2010-2014 **Bachelors**, Electrical Engineering Indian Institute of Technology Bombay

## Experience

- since 2014 **Systems Security Lab, TU Darmstadt** Android Developer and Security Researcher  
*Working in Cloud, Android and Mobile security.*
- 05-08 2014 **Google Summer of Code** Android Developer and Linux Kernel Programmer  
*Developed kernel display drivers for remotely accessing Linux from Android.*
- 05-07 2013 **Rice University, Houston** Hardware Security Researcher and Verilog Programmer  
*Implemented a novel Hardware security module and published it in DAC 2014.*

## Publications

- 2017 **Phonion: Practical Protection of Metadata in Telephony Networks** Proceedings on Privacy Enhancing Technologies (PoPETs) 2017
- 2016 **DroidAuditor: Forensic Analysis of Application-Layer Privilege Escalation Attacks on Android** Financial Cryptography and Data Security Conference 2016

## Achievements

- Winners of MAPPING Competition and €20,000 prize money, CeBIT 2016, Hannover
- A. Richard Newton Young Student Fellow Award, DAC 2014, San Francisco
- Recipient of Indian Association for Research in Computing Science grant, 2013

## Projects

- 2015-2016 **Omnishare** Android, Cryptography, Dropbox and Google Drive APIs  
*Developed an Android application for client side encryption of data before uploading to cloud services like Dropbox. The system also supports simultaneous multiple device installation and secure file sharing.*
- 2015-2016 **Phonion** Python, Java, Twilio, Asterisk, Google Voice, Selenium, Tor  
*Phonion is a Tor like anonymization network for Telephony or VoIP communications. Designed and implemented the Phonion architecture which offers better call quality than VoIP over Tor network and also supports offline calling.*
- 2014 **Android accessory driver** Linux Kernel, Android accessory  
*Developed a Kernel driver to setup any Android device into Accessory (ADK) mode. Also reused this as an independent module in developing a display driver for Linux on Android as part of Google Summer of Code.*
- 2012-2016 **MDroid - Moodle for Android** Android, Githooks, REST APIs, Markdown  
*Created a native open sourced Moodle application for Android. The app received over 80,000 downloads on Play Store and translated into 3 different languages by contributors.*