Praveen Kumar Pendyala

Android developer | Linux enthusiast | Web hobbyist

Info

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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, LaTeX, 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

2014–2016 Systems Security Lab, TU Darmstadt — Android Developer and Security Researcher
Successfully completed 3 different projects in Cloud security, Anonymous voice communications, and Analysis of attacks on Android. Co-authored 2 papers published in top tier conferences (one more in submission).

05–08 2014 Google Summer of Code — Android Developer and Linux Kernel Programmer
Developed kernel display drivers for accessing the GUI of a Linux device on Android by connecting with a USB cable. Also implemented an open source kernel driver to setup any Android device into Android Accessory mode.

Publications

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

Achievements

- Winners of MAPPING (Managing Alternatives for Privacy, Property and Internet Governance) App Competition and €20,000 prize money at CeBIT 2016, Hannover
- A. Richard Newton Young Student Fellow Award, DAC 2014, San Francisco

Projects

2015–2016 Omnishare — Android, Cryptography, Dropbox and Google Drive APIs
Omnishare is an Android application for client side encryption of data before uploading to cloud storage services. Collaborated with a team of 5 in designing the encryption architecture. Developed the Android application using modular components and Factory design pattern for abstracting different cloud APIs.

2015–2016 Phonion — Python, Java, Twilio, Asterisk, Google Voice, Selenium, Tor
Phonion is an anonymization network for voice communications. Designed and implemented the Phonion architecture which offers 50% lower latency and 30% better voice quality than alternatives like VoIP over Tor network. Implemented a distributed resource locking system for allocation of phone numbers from loosely co-operating entities.

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.