

Pranav Kant

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Education

National Institute of Technology

B.TECH., COMPUTER SCIENCE AND ENGINEERING

- GPA 7.38/10 (highest 8.2) in a class of 103 students

Hamirpur, India

August 2011 - May 2015

D.A.V. (CBSE Board)

CLASS XII

- 88.6%

Mandi, India

May 2011

D.A.V. (CBSE Board)

CLASS X

- 91.6%; Awarded Distinguished Student Award in New Delhi by CBSE for stellar academic and extracurricular performance.

Mandi, India

May 2009

Work Experience

Collabora

SOFTWARE ENGINEER

- Second highest contributor worldwide to LibreOffice Online.
- Created a monitoring console from scratch to monitor the LibreOffice Online server from the browser.
- Developed a C++ API to expose comments and change-tracking in LibreOffice core, and then used it to tunnel comments to the browser via LibreOffice Online backend.
- Worked on dialog interaction in the browser by tunneling dialog bitmaps and mouse/key events from LibreOffice in headless mode.
- Developed responsive UI design of LibreOffice Online front-end.
- Developed C++ API for exposing context menus in LibreOffice core, and then used it to add context menu support for LibreOffice Online in the browser.
- Overhauled the LibreOffice Online front-end build system by packaging and bundling JS files using 'browserify'.
- Hardened LibreOffice Online by implementing security headers, and identifying and fixing several security bugs.

Cambridge, UK

Jan 2016 - PRESENT

Jugnoo

BACKEND DEVELOPER

- Maintained backend authorization module used by several Jugnoo apps for authentication; worked on several bugfixes on day to day basis.
- Developed a user referral leaderboard using Redis sorted sets and CSV file importer for the backend support team.
- Integrated PayTM (digital wallet) and Google sign-in in the Jugnoo app backend.

Chandigarh, India

Jul 2015 - Jan 2016

Google Summer of Code 2015 (LibreOffice)

STUDENT DEVELOPER

- Wrote a Gtk+ widget in C++ to expose LibreOffice functionality, and integrated it successfully in gnome-documents.

Hamirpur, India

May 2015 - Aug 2015

Google Summer of Code 2014 (GNOME)

STUDENT DEVELOPER

- Added support for browsing DLNA media servers in gnome-photos, GNOME's photo management application.

Hamirpur, India

May 2014 - Aug 2014

Woocation

CO-FOUNDER

- Bootstrapped a startup idea - a recommendation engine based travel platform providing optimized routes, weather updates and places to visit.
- Used Natural Language Processing (NLTK package) to expose flight connection, weather, and transportation data in human-readable format.
- Used AWS based Hadoop clusters to crunch OpenStreetMap data to find optimized distances between cities using OSRM (Open Source Routing Machine.)

Hamirpur, India

May 2012 - Aug 2013

Conferences & Talks

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| Oct '17 | Google Mentor Summit , Invited to represent LibreOffice | San Francisco, USA |
| Oct '17 | LibreOffice Conference , Talk on "Native comments" and "Dialog tunneling" | Rome, Italy |
| Sep '16 | LibreOffice Conference , Talk on "New features in LOKDocView widget" | Brno, Czech Republic |
| Sep '15 | LibreOffice Conference , Talk on GSoC '15 project, "Integrating LibreOffice with GNOME" | Aarhus, Denmark |
| Aug '15 | GNOME Conference , Talk on GSoC '15 project, "Integrating LibreOffice with GNOME" | Gothenburg, Sweden |
| Jul '15 | Fedora Conference , Talk on "Automated UI testing" | Pune, India |
| Jul '14 | GNOME Conference , Talk on GSoC '14 project, "Browsing DLNA Media servers" | Strasbourg, France |

Honors & Certificates

- Certificate of Appreciation**, Awarded by Computer Center, NIT Hamirpur, for reporting and fixing major security vulnerabilities in college server: Microsoft SQL server vulnerability found by using Metasploit, SQLi, and XSS at few places in the website. *NIT Hamirpur, India*
- 2014 **Winner**, Annual Coding competition at ISTE (Indian Society of Technical Education) *NIT Hamirpur, India*
- 2014 **Winner**, Annual Coding competition at Nimbus, NITH's Annual Technical festival *NIT Hamirpur, India*
- 2013 **Winner**, Annual Coding competition at Nimbus, NITH's Annual Technical festival *NIT Hamirpur, India*
- 2010-11 **Head Boy**, Represented and led school student body *D.A.V. Mandi, India*

Skills

- Programming** C/C++, Javascript, Python, Bash, Java, Ruby, LaTeX, Haskell
- Web** Django, Express, Rails, Flask, HTML5
- Design** Adobe Photoshop, GIMP, Inkscape, Adobe Flash
- Softwares/Libraries** Git, MongoDB, Redis, Neo4j, MySQL, PostgreSQL, Boost, GTK+, Cairo, Metasploit

Community contributions

Mozilla Developer

- MOZILLA *Jan 2014*
- Exposing raw data on UDP sockets

Fedora Packager

- THE FEDORA PROJECT *Oct 2014 - PRESENT*
- Maintainer of SFML, soundconverter, sshrc, proxychains-ng in Fedora repositories. Reviewer and tester of Fedora packages.

GNOME Developer

- GNOME *Jan 2014 - Jan 2016*
- Automated UI testing. Several bugfixes in gnome-photos and gnome-documents.

Projects

Program Dependence Mesh: A data-driven interpretation of imperative programs

- UNDERGRADUATE THESIS *Aug 2014 - May 2015*
- Invented a synthesizable representation, called Program Dependence Mesh (PDM), of programs written in imperative languages.
 - Used LLVM to write a compiler pass to generate PDM from LLVM IR. The target of PDM is a unified platform that can be used as an ASIC, a CPU, or even a CGRA.

Sentimental Analysis in Hindi

- COURSE PROJECT *Dec 2014*
- Gathered synsets in Hindi using the Hindi SentiWordNet and experimented with subjective lexicons, ngram, weighted ngram using NLTK.
 - Trained an ensemble from several classifiers: Naive Bayes, SVM, Logistic Regression, and Random Forest.

Fingerprint authentication platform

- CONSULTANT DEVELOPER *Aug 2013 - Oct 2013*
- Next generation secure login system using NBIS. Reverse-engineered Windows drivers for Futronics fingerprint scanner.

Extracurricular Activity

Google Summer of Code 2017

- MENTOR *May 2017 - Aug 2017*
- Mentored a GSoC project on LibreOffice Online to successful completion.

GNU/Linux User Group (GLUG-NITH)

- SYSADMIN & CLUB LEAD *NIT Hamirpur*
May 2012 - May 2015
- Installed & maintained Ubuntu, Fedora, BOSS, GNU, kernel.org, LinuxMint, and LDP mirror servers. We were among the few mirrors in India.
 - Developed & maintained pastebin, exam result software on student server.
 - Installed and maintained club's mail server, web server, wiki, and local project hosting.
 - Organized inaugural events: Software Freedom Day, Linux Installation fests, NITH Hackathon, Codechef Coding Competition, and educational meetups.

Computer Science & Engineering Community (CSEC)

- SYSADMIN & TECHNICAL CLUB LEAD *NIT Hamirpur*
May 2013 - May 2015
- Represented college in IIT Delhi and IIT Mumbai annual technical competitions.
 - Organized NITH Hackathon; inaugurated ACM ICPC Chapter and CodeChef chapter.
 - Conducted several coding competitions as part of CSEC annual technical festival.