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# Arshpreet Singh

Software Engineer

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## Programming



## OS Preference

GNU/Linux ★★★★★  
Unix ★★★★★  
MacOS ★★★★★  
Windows ★★★★★

## Personal Skills



## Languages

English ★★★★★  
Punjabi ★★★★★  
Hindi ★★★★★

## Experience

### 06/15 - Now Freelance Developer & Consultant

[Elance/Upwork](#)

Design and development of Python Applications, Web Solutions, Unix and GNU/Linux software, LTSP Cluster implementation at PCTE Baddowal, Ludhiana. Development of Flask-based Gmail Analyser presently running at [www.optoseo.com/survey](http://www.optoseo.com/survey), Python implementation of OpenCV face-detection, Rocks cluster([www.rockscluster.org](http://www.rockscluster.org)) implementation and workshop at GNDEC Ludhiana, Development of advance volume filter using Python-Scipy and Paraview.

### 01/13 - Now Administration and Management

[S.D. Public School, Barnala](#)

Transport and quality management, Conducted various workshops to initiate programming and use of open source technologies also contributed to Open-source projects. TuxMath-TuxPaint translation to Punjabi and Hindi, Developed SDPS website, OpenStreet([www.osm.org](http://www.osm.org)) mapping done for 15 villages around SDPS, Implementation of LTSP(Linux terminal server project) for computer-lab and ongoing development of Smart-Class project using Raspberry-pie and Moodle.

### 01/14 - 02/15 Linux Trainer and Web Developer

[FutureTech IT centre Ludhiana](#)

Teaching Linux Desktop and Server Administration skills to students. Developed various projects using technologies HTML, CSS, JavaScript, Python, C and shell Script. Computer technical support. Problem solving related to hardware, software and Operating Systems. Management of the internal network.

### 01/13 - 06/13 Intern-ship

[SysInfocom, Chandigarh](#)

Training for Linux Desktop and Server Administration, management and migration of servers. Development of "Python Battery Saver pack"(Python Based). Learning and using Latex for creating reports and documents.

### 06/11 - 07/11 Intern-ship

[TCC GNDEC Ludhiana](#)

Training for Python. Worked on college souvenir(Django Based Project). SageMath Deployment on Server and introducing SageMath and it's features to Research Students.

## Education

### 2009 - 2013 Bachelor's Degree in Information Technology

[GNDCE Ludhiana, Punjab, India](#)

Main subjects: Mathematics and Physics, Programming(C, C++, Java, Python, JavaScript), Network Operating Systems, Web Technologies, Database Administration, Software Development  
*Major Project: "Automation for Testing and consultancy cell".*  
*Project development carried out during intern-ship period at Sysinfocom Chandigarh*

### 2007 - 2009 Senior Secondary School

[DC model school, Ferozepur](#)

Non Medical Stream:

Main subjects: Mathematics, Physics and Chemistry.

# Projects

- |         |  |                        |
|---------|--|------------------------|
| 09/2015 | <b>Gmail Analyser</b><br><i>Gmail Analyser is Flask Based Solution which provides data of All Emails as per the request. Application is integrated with Gmail-Oauth2 login, pygal python library is used to generate graphs based on Data, Whole application is bootstrapped and optimised for mobile devices.</i>   | <a href="#">Github</a> |
| 03/2016 | <b>ParaView Advanced Volume Filter</b><br><i>ParaView is an open-source, multi-platform data analysis and visualization application. ParaView users can quickly build visualizations to analyse their data using qualitative and quantitative techniques. Advanced Volume Filter is developed using fsolve() function from scipy(Scientific Python) to find out Volume intersection between two or more shapes. This project is also able to perform Advanced Rendering of different types of Volume and reading more than one VTS files in parallel mode. To find ISO values for shared volume Python-generators are used to decrease memory footprints. Other functions can perform creating and positioning of Arrow, use to apply integral filter on IsoVolumes and find out minimum and maximum volume ranges individually as well.</i> | <a href="#">Github</a> |
| 09/2015 | <b>Centre-Table Design using OpenScad Scripting</b><br><i>OpenScad is first C programming based CAD software which is used by various technologies those includes 3D printing and simulation. Centre table is designed using Scripting language of OpenScad which demonstrate various steps to create basic and advanced shapes.</i>   | <a href="#">Github</a> |
| 12/2013 | <b>Battery Saver</b><br><i>Battery Saver is responsible for keeping battery power between 40-80 percentage. A laptop battery could be prolonged by lowering the charge voltage when connected to the AC grid. To make this feature user-friendly, a device should feature a "Long Life" mode that keeps the battery at 4.05V/cell and offers a capacity of about 80 percent. One hour before traveling, the user requests the full Capacity mode to bring the charge to 4.20V/cell.</i>  | <a href="#">Github</a> |
| 03/2014 | <b>Restaurant Website</b><br><i>Product URL:<a href="http://popsysrestaurant.com/cuisin.html">http://popsysrestaurant.com/cuisin.html</a></i>  | <a href="#">Github</a> |

## Open Source Contributions

- |         |  |                        |
|---------|--|------------------------|
| 02/2014 | <b>Tuxblocks</b><br><i>Tuxblocks Game is developed to teach Algebra to School students using playful method. Game is developed using Java Based PlayN Game Engine. Hindi+Punjabi Translation of Game, Fixes for font-Class, Implementation of Language translation system, Bug reports</i> | <a href="#">Github</a> |
| 09/2014 | <b>Open Street Mapping</b><br><i>Completed Digital mapping of 20 villages around my Village Kutba.</i>   | <a href="#">Github</a> |
| 03/2015 | <b>Music Player</b><br><i>Python based simple music player. Pygame library is used to access MP3 and wave files.</i>   | <a href="#">Github</a> |
| 10/2015 | <b>Browser-Based File-Manager</b><br><i>Flask based file manager, Contribution made to read/access any kind of file(audio/video/images) whatever browser can support.</i>  | <a href="#">Github</a> |
| 12/2015 | <b>Texttomp3 Android implementation</b><br><i>Contributed to Open-source project Plyer by creating Python wrapper around Java Classes.</i>   | <a href="#">Github</a> |

May 20th, 2016

Arshpreet Singh Khangura