

# Ashish Gupta

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## EDUCATION

### PUNE UNIVERSITY

BE IN INFORMATION TECHNOLOGY  
Graduated May 2015 | Pune, IN  
Pune Institute of Computer Technology

## HANDLES

Github - ashmew2  
Freenode IRC - ashmew2  
CodeForces - ashmew2  
Linkedin - ashmew2  
Ubuntu Forums - ashmew2  
KolibriOS Forums - ashmew2  
CodeChef - ashmew2

## COURSEWORK

### UNDERGRADUATE

Algorithms and Data Structures  
Discrete Structures  
Advanced Operating Systems  
Compiler Design  
Advanced Computer Networks  
Distributed Systems

## SKILLS

### PROGRAMMING

C • C++ • Python • Emacs Lisp  
BASH • i386 Assembly  
Click Modular Router • GNU Make

### TECHNOLOGY / TOOLS

Emacs • Git • SVN • Wireshark  
GNU / Linux • Mercurial • IRC  
Jenkins • Capistrano

### INTERESTS

Free and Open Source Software  
GNU / Linux  
Problem Solving  
Distributed Systems  
Operating Systems  
Multiplayer Gaming  
Protocol Design  
Physics  
Game development

## EXPERIENCE

### RAKUTEN INC | OCT 2015- PRESENT

Tokyo, Japan

- Core API Developer for Super Point
- Automation with Ruby, Shell and Python

## OPEN SOURCE CONTRIBUTIONS

### WIRELESS MESH NETWORKS | DEC 2014 - MAR 2015

Bandwidth utilization in Wireless Mesh Networks

- Use multiple internet connections simultaneously for increased throughput.
- Load balancing in Userspace using Click Modular Router for linear gains.
- Radio Physics, ARP, Reverse Proxies, DHCP, L2 and L3 networking.

### KOLIBRI OS | ONGOING

Developer and Mentor

- Porting Netsurf Web browser for KolibriOS.
- Developed a C to Assembly Interface for using assembly libraries in C.
- Developing a Cross Compiler based on GCC and GNU binutils with newlib port.
- Author of GUI library in C for kolibriOS.
- Mentor for Google Summer of Code 2016 for developing a POSIX C layer.
- C, assembly, binary level debugging, newlib, compilers, HTTP.

### PIDGIN INSTANT MESSENGER | MAY 2013 – SEP 2013

Implement File Transfer for Google Talk in Pidgin

- Reverse engineered the libjingle protocol used by Google Talk for file transfers.
- Implemented the reversed libjingle into Pidgin's Google Talk Protocol plugin.
- Documented the working of the libjingle protocol on the IM Freedom wiki.
- C, XMPP, Networking, Protocol design, libnice, NAT traversal.

### THE CLASH MCQ SYSTEM | JUL 2012 – SEP 2012

A System for hosting intercollege programming competitions

- Convert paper based contests to LAN based tournaments.
- Python, Qt, Networking, Algorithms, Data Structures.

### SNAKE GAME | SEP 2009 – DEC 2009

A Reincarnation of the classic game

- C, C++, Borland Turbo C BGI / Graphics Library

## ACHIEVEMENTS

### ACM ICPC | ASIA REGIONALS

International Collegiate Programming Challenge.

December 2012 | IIT Kanpur | All Asia Rank 54

December 2013 | ASE Bangalore | All Asia Rank 110

December 2013 | IIT Kanpur | All Asia Rank 36

### GOOGLE SUMMER OF CODE | GSOC

Student in 2013 for Pidgin

Student in 2014 for KolibriOS

Mentor in 2016 for KolibriOS