

# Rajdeep Das

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## PERSONAL INFORMATION

PhD Student  
UC San Diego  
La Jolla, CA (USA)

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## RESEARCH INTERESTS

Datacenter Networking, Wireless Networking, Real-Time Streaming

## EDUCATION

### **PhD / Computer Science and Engineering**

*University of California San Diego*

2017 - present

### **M.Tech / Computer Science and Engineering**

*Indian Institute of Technology Kanpur*

2013 - 2015

CGPA: 8.29/10

### **B.Tech / Information Technology**

*West Bengal University of Technology*

2009 - 2013

CGPA: 8.25/10

### **High School / Indian School Certificate**

*Council for the Indian School Certificate Examinations*

2009

Result: 84%

## PUBLICATIONS

*Junchen Jiang, Rajdeep Das, Ganesh Ananthanarayanan, Philip A. Chou, Venkata Padmanabhan, Vyas Sekar, Esbjorn Dominique, Marcin Goliszewski, Dalibor Kukoleca, Renat Vafin, Hui Zhang.* "VIA: Improving Internet Telephony Call Quality Using Predictive Relay Selection". ACM SIGCOMM, 2016

*Rajdeep Das, Nimantha Baranasuriya, Venkat Padmanabhan, Christoffer Rodbro, Seth Gilbert.* "Informed Bandwidth Adaptation in Wi-Fi Networks using Ping-Pair". ACM CoNext, 2017

*Sagar Parihar, Ziyaan Dadachanji, Praveen Kumar Singh, Rajdeep Das, Amey Karkare, Arnab Bhattacharya.* "Automatic Grading and Feedback using Program Repair for Introductory Programming Courses". ACM ITICSE, 2017

## PROFESSIONAL EXPERIENCE

### **Microsoft Research India / Research Fellow**

Bangalore, August 2015 - August 2017

*Mobility, Networks and Systems Research Group*

*Internet Performance Map & Predictive Relaying* - A data structure / visualization of the internet which could be used by real-time streaming applications like Skype to predict the quality of future calls. Leveraged large amounts of telemetry data from Skype and Bing to devise a method of using predictive relaying to improve call quality.

*Kwikr* - Fast bandwidth adaptation using WiFi hints. We developed a suite of detectors for congestion, handoffs and link-strength-change at the WiFi access point. The congestion detector involved our novel ping-pair technique which can be used to estimate the queueing delay at the wireless access point. We integrated Kwikr into Skype for Android consumer production client.

*Multipath in Real-Time Streaming* - Using multiple paths over different network interfaces or different WAN paths to improve performance of real-time streaming applications.

	<b>PriceWaterhouseCoopers / Intern</b>	Kolkata, June 2012 - August 2012
	Primary responsibility involved assessing web applications for security vulnerabilities and recommending fixes for them. The security vulnerabilities that I tested for included attacks such as cross-site-scripting, injection, session hijacking, sensitive data leakage, cross-site-request-forgery, insecure direct object references and unvalidated forwards/redirects.	
MASTER'S THESIS	<b>A Tutoring System for Introductory Programming</b>	
	Developed a software system for teaching introductory programming, now known as Prutor. Prutor is a cloud based system with a web interface that students can use to solve programming problems and get feedback for syntactic/semantic errors. Prutor can trace the evolution of student programs and help in better interactivity between students and tutors/TAs. Universities like IIT Kanpur, IIT Bombay and IIT Goa have used Prutor to conduct introductory programming courses.	
AWARDS & ACHIEVEMENTS	<b>Best Software Award</b>	2015
	<i>Indian Institute of Technology Kanpur</i>	
	<b>School Topper</b>	2003, 2007, 2008
	<i>National Science Olympiad</i>	
CO-CURRICULAR ACTIVITIES	<b>Google Dev Fest / Runner Up</b>	September 2013
	<i>WishEmAll</i> : Created an app that automatically wishes Facebook friends on their birthdays.	
	<b>Yahoo! Hack U / Honourable Mention</b>	August 2013
	<i>Gyaanometer</i> : Our hack was a user rating system for Yahoo answers, where every user would be given a rating according to her past activity. Our hack was ranked in the top 7 hacks.	
	<b>Microsoft Code.Fun.Do / Participated</b>	January 2013
	<i>Botomatic</i> : We created an app which would connect to Facebook on behalf of a user and chat with her friends. The app used Pandorabots AI to converse with the users' friends.	