

# Somdeep Dey

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## EDUCATION

### **COLUMBIA UNIVERSITY | MASTERS IN COMPUTER SCIENCE**

Expected Dec 2016 | New York, NY • GPA: 3.88/4.0

Algorithms | Cloud and Big Data | Micro Services | OS | Database Systems Implementation | Computer Vision | PLT  
Graduate Course Assistant for Software Engineering, Introduction to Databases and Programming for Entrepreneurs

### **PUNE INSTITUTE OF COMPUTER TECHNOLOGY (PICT) | BE IN COMPUTER SCIENCE**

May 2015 | Pune, India • GPA: 3.6/4.0

Operating Systems | Compilers | Advanced DBMS | Algorithms | Software Architecture | Distributed OS

## EXPERIENCE

### **NEXTJUMP | SOFTWARE ENGINEERING INTERN**

June 2016 – August 2016 | New York, NY

Worked on the Onecart team using a combination of PHP and Go to build backend APIs and service points for the Onecart experience serving as the central point of search and payment for Next Jump's millions of users on the Perks at Work platform.

## PROJECTS

### **OPERATING SYSTEMS | COURSE PROJECTS**

Jan 2016 - May 2016 | Columbia University, New York, NY

Built projects including industrial-strength web server, basic file system, kernel key-value store and a full fledged kernel scheduler in a Linux environment.

### **FLATMATE.IO | ROOMMATE FINDER BASED ON MEAN STACK AND BLUEMIX**

Dec 2015 | Columbia University, New York, NY

Collaborative filtering using Facebook and LinkedIn data, thus aligning personal and professional matches. Auto-scaling messaging infrastructure to ensure users have real-time connectivity and face no downtime.

### **STUDENT-COURSE MANAGEMENT SYSTEM | K-12 SYSTEM USING MICRO SERVICES ARCHITECTURE.**

Oct 2015 | Columbia University, New York, NY

Implemented z-axis scaling, live schema change for administrators, single point of reference API gateway, ref-integrity using RabbitMQ, auto instance creation on increased data and data partitioning on surnames.

### **TWEETGEO | JAVA WEB APP ON ELASTIC BEANSTALK DEPICTING MAP WITH REAL TIME TWEETS**

Sept 2015 | Columbia University, New York, NY

Twitter Live API data streamed to map using WebSockets, depicting trend heatmap geographically. Sentiment analysis of tweets using multi-threaded worker pool, highlighting public opinion of events.

### **LINUX KERNEL CONTRIBUTION | XFS FILE SYSTEM DEFRAGMENTER UTILITIES IMPLEMENTED USING C**

Sep 2014 – May 2015 | Pune, India

- 'Spaceman': generated free space report of the overall filesystem, enabling freespace defragmentation.
- Made headway into partial defragmentation (portions of large files), hitherto untried across file systems.
- Dave Chinner, maintainer of XFS, reviewed all patches, features were included in the Linux Kernel (3.19).
- 'FaSteR Spaceman' discussed by experts at Linux Filesystem Storage and Memory Management Summit (LSFMM - 2015).

### **VIRTUAL LEARNING ENVIRONMENT | JAVA-BASED VLE HOSTING ASSIGNMENTS AND VIDEOS.**

Jan 2014 - May 2014 | PICT, Pune, India

Private cloud infrastructure on Eucalyptus for use only within PICT Computer Science department. Role based access control, discussion board for interaction, email updates, timetable export and import and adaptive tests to ensure one-stop solution.

## TECHNICAL SKILLS

Java, C, C++, SQL, Node.js, JavaScript, Python, PHP, Linux, Go, Hadoop, XAMP, Git, HTML, Bootstrap, Angular, AWS, Mongo