

# Prashant Jalan

## Web

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## Address

Foster City, California

## Interests

Artificial Intelligence  
Machine Learning  
Big Data  
Parallel Computing  
Optimization

## Courses

Data Structure  
Algorithms  
Operating Systems  
Compiler Design  
Natural Language  
Computer Vision  
Computer Networks  
Database Design  
Game Theory  
Social Media Analytics

## Skills

**Lang:** C, Python,  
C++, Java  
**AI:** Caffe, OpenCV,  
Weka, NLTK  
**Data:** R, HDFS,  
Hadoop, Spark  
**Sys:** Assembly, Lex,  
Verilog, Yacc  
**Parallel:** OpenMP,  
CUDA C++  
**Dev:** Android, Nginx,  
Django, Node.js,  
Redis, PL/SQL,  
SQL, MondoDB

## Experience

- 09/15 - Now **Software Engineer, Oracle** Redwood Shores, California  
Design and development of algorithms, solutions and analysis schemes for the order processing backend platform at Oracle Public Cloud along with handling live customers, production issues and data migration from time to time.
- 05/15 - 08/15 **Student Developer, Google** Google Summer of Code  
Design and development of an open source 'Distributed Order Processing System' to distribute jobs among various nodes around the world using Docker and Celery.
- 05/14 - 08/14 **Student Intern, Directi** Mumbai, India  
Design and development of a real time 'Anomaly Detection Engine' to detect and report anomalies or outliers for continuously generated advert production data.
- 05/13 - 08/13 **Student Intern, Systemantics** Bangalore, India  
Design and development of an Android application from scratch to track user's attention to regulate access control thereby resembling a virtual dead man's switch.

## Publications

- Identifying Hierarchical Structures in Sequences on GPU** IEEE ISPA '15  
Invented Pequitur - a parallel algorithm to compress and infer hierarchical structure from a sequence. Achieved 3x speedup while having similar compression ratio on NVIDIA GPU (CUDA).
- TraffTrend-Real Time Traffic Updates & Trends using Social Media Analytics** ACM CoDS '15  
Analyzed news, tweets & FB posts to show real time traffic updates & trends with 82.3% accuracy.
- Syllables as Linguistic Units?** ICON '14  
Discovered nouns in a language having no prior knowledge or word boundary information by using an unsupervised syllabic approach that outperforms the orthographic word model approach.
- Autonomous Rubik's Cube Solver Using Image Processing** IJERT '13  
Conceptualized & fabricated an autonomous 3x3 Rubik's cube solver to detect & solve a cube.

## Education

- 07/11 - 05/15 **Bachelor's in Computer Science** Indian Institute of Technology Kanpur, India  
**Minor in Industrial Management & Engineering**  
*Graduated with Distinction. CGPA: 3.5/4.0*  
*Awarded Academic Excellence award for exceptional academic performance.*  
*A\* grade in four courses & best course project in two courses.*  
*Secured 176 rank (top 0.03%) in IIT-JEE entrance examination.*
- 05/15 - 08/15 **Visiting Research Scholar** University of Heidelberg, Germany  
Researched and computed multi-dimensional Finite Time Lyapunov Exponent ridges in space for particles with an initial mass and velocity on GPU.

## Achievements

- Invited for the 5th South Asia Workshop '15 at the School of Computing, N.U.S., Singapore.
- Presented 'TraffTrend' software in the XRCI Open '15, organised by Xerox Research Labs.
- Invited for the workshop on Data & Text Analytics (DATA '14) organized by S.A.U., Delhi.
- Secured 2nd position among 400 teams in IHPC '14 (parallel programming competition).
- Winners among 10 teams all over India in National Technical Challenge, IBM I-CARE '13.
- Winners in Microsoft code.fun.do '13, a 24 hour hackathon organized at IIT Kanpur.