J-8/117
Rajouri Garden
New Delhi-110027
India

JASKARAN S. VIRDI

(91)858591284
jaskaranvirdi1@gmail.com
https://github.com/jaskaran1
https://github.com/jaskaranvirdi

EMPLOYMENT

Software Engineer *July 2015-Current*

zomato

- Currently working in the Reviews team of Zomato-Food & Restaurant Finder
- Development of new features for mobile app(iOS) and backend for improving the quality and quantity of reviews on Zomato thereby increasing user and restaurant engagement and driving business for Zomato
- Working on Spam Detection for improving the quality of reviews on Zomato
- Zomato on iOS has a rating of 4.5/5 on the App Store
- In the past worked on Zomato Book, an iPad app for simplifying table reservation and management for both the restaurant and the customer.https://www.zomato.com/book
- Integrated the Zomato iOS app with Bosch's MySpin smart phone integration system for Jaguar Land Rover thereby bringing Zomato experience to the in-car infotainment segment. This was covered in a news article. http://www.zigwheels.com/news-features/news/jaguar-land-rover-incontrol-apps-to-now-provide-access-to-zomato-ndtv-and-more/23955/

Software Engineering Internship *Summer 2014*

ARISTA

- Worked on maximum-paths command for setting Equal Cost Multiple Paths(ECMP) in the ISIS routing protocol
- Worked on distance command for setting up of administrative distances in the OSPFv3 routing protocol
- Both projects involved development and writing unit tests

Campus Ambassador *Fall 2015*

HackerRank

- Was responsible for setting up HackerRank Programming Club at IIT Ropar
- Got sponsorship for Code-O-Mania(an inter-college coding competition of IIT Ropar) worth Rs 7500.
- Received certificate of appreciation from Nimesh Mathur,Head,India & APAC-University Relations,HackerRank

EDUCATION

Ropar,Punjab **Indian Institute of Technology(IIT), Ropar, India** *2011-2015*

- B.Tech in Computer Science and Engineering
- CGPA-8.87 (on a 10 point scale after 8 semesters, Department Rank-2/38)

Coursework

CS:Data Structures,Computer Architecture,Programming Languages, Algorithms,Operating Systems,Computer Graphics,Software Architecture, Artificial Intelligence,Machine Learning, Digital Image Processing, Computer Vision, Databases **EE**:Principles of Electrical Engineering, Digital Electronics **Math**: Discrete Math,Real Analysis,Complex Analysis,Probability and Stochastic processes, Fuzzy logic

Independent Coursework

- Programming Mobile Applications for Android Handheld Systems:Part 1(Coursera-UMCP)(100%) *2015*
- Algorithms : Design and Analysis-Coursera-Stanford University(MOOC)-Merit Certificate(100%) *2012*
- Machine Learning-Coursera- Stanford University (MOOC)-Merit Certificate(97.8%) *2012*

Undergraduate Projects

Multi-Label Learning for Activity Recognition *2014-2015*

Undergraduate Thesis Advisor-Dr CK Narayanan

- Developed a model for predicting human activities by learning from recorded sensors events
- The problem was modelled as a multi-label learning problem
- Customized Random Forests were used on activity recognition data sets to get the best performance
- Published in 2015 International Conference on Intelligent Environments (IE 2015), available on IEEE Xplore
- Nominated for the best paper award in the work in progress category and received honourable mention.

- Link to paper: http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=7194287&punumber%3D7194253%26filter%3DAND(p_IS_Number%3A7194254)%26pageNumber%3D2

9 puzzle problem solver *2014*

Artificial Intelligence-Dr CK Narayanan

- Solver written in C++ uses search techniques like DFS, BFS, GBFS, A*, IDS to solve the 9 puzzle problem.
- Concluded that A* with Manhattan heuristic performs best.
- Source:https://github.com/jaskaran1/CSL302_Artificial_Intelligence/tree/master/9puzzle

Reversi Player *2014*

Artificial Intelligence-Dr CK Narayanan

Bot to play Reversi, written in C++ using alpha-beta pruning with heuristics such as coin parity, weighted coin parity. Source: https://github.com/jaskaran1/CSL302_Artificial_Intelligence/tree/master/Reversi

Airborne 2013

Computer Graphics-Dr Deepti Bathula

Flight-based GUI game for Linux using C++/OpenGL. Source: https://github.com/jaskaran1/Airborne-GUI-game

Raytracer *2013*

Computer Graphics-Dr Deepti Bathula

Raytracer in C++ with Phong Illumination.Source: https://github.com/jaskaran1/ComputerGraphics/tree/master/Raytracer

Shell *2013*

Operating System-Dr Nitin Auluck

Implemented a Linux like shell in C using system calls with command history and file completion. Source: https://github.com/jaskaran1/CSL333_Shell

Machine Learning(Coursera) *2012*

Stanford-Dr Andrew Ng

- Wrote neural network to implement digit recognition in MATLAB
- Built a spam classifier using SVM
- Compress an image with K-Means and used PCA to find a low dimensional representation of face images
- Applied anomaly detection algorithm to detect failing servers on a network
- Used collaborative filtering to implement recommender system for movies
- Source: https://github.com/jaskaran1/Coursera_Machine_Learning_Andrew_Ng

Interpreter *2012*

Data Structures-Dr Apurva Mudgal

Implemented an interpreter for a parenthesis based language in C++ using generalized linked list data structure. Source: https://github.com/jaskaran1/CSL201_Data_Structures/tree/master/Parenthesis_Language_Interpreter

Computer Architecture Simulator *2012*

Computer Architecture-Dr Smruti Ranjan Sarangi

- Computer architecture simulator in C++
- Simulates pipeline, branch predictor and cache to find out IPC,L1 miss rate,L2 local miss rate and branch prediction accuracy.

mlpack

Contributed code to open-source scalable machine learning library by Georgia Institute of Technology, written in C++.

Filed Patent

15 November, 2013

Weighing system (2013) - a cost effective computer integrated solution for weighing any material. Inventors: Dr. Prabir Sarkar (principal investigator), Banoth Praveen Kumar, Honey Singla, Imroj Qamar, Jaskaran Singh Virdi, Kumar Harshad. Application Number: 3354/DEL/2013.

Languages and Technologies

- C++;C;Objective-C;Python;MATLAB;PHP;Javascript;HTML;ARM assembly;SQL;Latex
- iOS ,OSX,Linux(Ubuntu),Windows, OpenGL,Emacs,Vim,XCode,UIAutomation,Git,Postgresql,Mysql,Weka

Honours & Awards at college

- Merit prizes for the 1st,2nd, 3rd and 7th semester for being in the top 10% in college in academics.
- 3rd position in Robosapiens-Cognizance 2012: Was involved in the construction of 2 minibots- a line follower and a wired manual bot with a primitive picking arm according to the problem statement, at IIT,Roorkee.
- Won a t-shirt and 100$ AWS credits from HackerRank after ranking 164/4069 globally in CodeSprint5.

Honours and Awards in school

- Received 7 year scholar award for academic proficiency and was appointed as high school valedictorian
- Kishore Vaigyanik Protsahan Yojana(KVPY) scholarship (2010) awardee

- Awarded Merit certificate for being in the National Top 1% of 38994 candidates in National Standard Exam of Physics(NSEP) 2010-11.

Positions of Responsibility

Executive member of the Robotics club of IIT Ropar

- Took classes on basic electronics related to robotics and movement techniques
- Trained juniors for college competitions in robotics
- Was responsible for organizing the first robotics competition at intra-college level
- Designed and constructed a track for the competition and was involved in judging the event