Prateek Chanda

Portfolio
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EDUCATION

IIEST SHIBPUR
B.Tech in Computer Science
Expected Jul 2019 | Howrah, India
GPA: 8.8/10

SOUTH POINT HIGH SCHOOL
Grad. May 2015 | Kolkata, India

LINKS

Github: **prateekiiest**
LinkedIn: **prateekchanda**
Twitter: **@prateekiiest**
Quora: **Prateek-Chanda**
Medium: **Prateek-Chanda**

COURSEWORK

UNDERGRADUATE
Data Structures and Algorithms
Operating Systems
Data Mining
Discrete Structures
Computer Graphics
Computer Networks
Database Management

SKILLS

PROGRAMMING
Python • Java • JavaScript • Matlab
Ruby • R • Node,js •
C • C++ • CSS • PHP

SOCIETIES

Community Member of NumFocus
FOSSASIA Developers Group
Google Developers Group Kolkata
University Open Source Head
GitHub Campus Expert - Profile
TEDx IIEST Shibpur - Core Member

CONFERENCES

ATTENDED
Speaker - Kharagpur Open Source Society
Google Developers Solve for India
FOSSASIA Open Tech
GitHub Field Day
RISE 2017 Conference, Hong Kong

EXPERIENCE

FOSSASIA (FREE OPEN SOURCE SOFTWARE ASIA) - SUSI.AI
Software Developer Intern | Project Link
May 2018 – Present
- Worked with around 126 project developers under the biggest open source community of Asia on the SUSI.AI project - an artificial intelligence chatbot in the likes of Google Home, Amazon Alexa.
- Implemented new architecture for SUSI Smart Speaker Application prototype with improvements in text to speech, voice recognition, user interface and bug fixes in installation scripts.

LINUX FOUNDATION - OPENDAYLIGHT
Software Developer Intern
April 2018 – Present
- Designed an automated Jenkins support for building jobs in Maven for different Opendaylight projects through a bot service, required in continuous integration for software development purposes.

MACHINE INTELLIGENCE UNIT, INDIAN STATISTICAL INSTITUTE
Machine Learning Research Fellow | Kolkata, India
May 2018 – August 2018
- Conducted theoretical analysis on various Metric Learning algorithms to learn similarity metric from data based on optimization techniques.
- Implemented a novel algorithm with improved convergence accuracy and resolving drawbacks of traditional approaches. Publication in progress

APACHE OPEN CLIMATE WORKBENCH
Student Developer | NASA Open Source Software
May 2018 – July 2018
- Implemented new metrics for better climate model evaluation purpose, accompanied with unit tests.
- Resolved high priority issues for package uploading in PyPi, minor bug fixes and dependency failures, reducing around 60% of the release block items

COMPLEX NETWORK RESEARCH GROUP, IIT KHARAGPUR
Research Intern | Student Group Activity Recognition
May 2017 – Jun 2017 | Kharagpur, India
- Designed classification models that can predict student group formation and group dynamics using mobile sensor data like wifi location, accelerometer values and voice levels with an accuracy of 88.9%.

SUNPY, OPENASTRONOMY
Student Developer | NASA Open Source Software
Dec 2016 – Jul 2018
- Added extra functionalities to the solar map objects being used and solar map plotting procedures.
- Implemented new features to analyze regions of high solar intensities from solar plot and new image processing algorithms to capture solar flares from solar plots with an accuracy of 83.3%
- Worked in a team of 60 research scholars and scientists from NASA, UCL and Stanford. Got acknowledged along with researchers at NASA Goddard Space Flight Center for outstanding contributions to the project. - Software Releases

OPEN SOURCE MENTORSHIPS

HacktoberFest
Kharagpur Winter of Code - IIT Kgp
24PullRequests
1 Million Women to Tech
Women in Technology

VOLUNTEERING

Event Manager - TEDxIIEST Shibpur
Student Mentor - Code.org
DRI Research Head - Stanford Scholar
GeeksforGeeks Campus Ambassador

CERTIFICATIONS

Python for Research - Havard University
Programmatic SQL Objects - Microsoft
Cloud Computing - Microsoft
Machine Learning Nanodegree - Udacity
Machine Learning Intro - Coursera
Software Engineering - Coursera
Operating Systems - Udacity

RELEVANT LINKS

My Open Source Journey - Medium
Open Source Contributions - Wiki

PROJECTS

SHELLIX - UNIX IMPLEMENTATION OF SHELL
PROJECT LINK
Designed a robust implementation of shell for Unix based systems, containing all common features supported under bash as well as a few more enhancements.

SOLAR DATA ANALYSIS SYSTEM
PROJECT LINK
Implemented a solar data retrieval system to collect solar data from various solar observatories based on date and time and analyze different helio-features from the data over time.

CONGESTION REDUCED ROUTING IN WDM NETWORKS
ACADEMIC PROJECT LINK
Designed a new probability based routing algorithm in WDM optical networks to reduce congestion of links and ensure fast and secure data transfer operations.

DOCUMENT TOPIC MODELLING
ACADEMIC PROJECT
Designed a new dynamic graph clustering algorithm in python based on importance factor of nodes in a graph. Publication under progress.

CODE SLEEP PYTHON
PROJECT LINK
Worked on building a curated list of simple sub-projects using python ranging from games, core machine learning applications and desktop applications. Led a team of 60 open source contributors and mentored them to build the whole project over 6 months period.

NETWORKING APPLICATIONS
PROJECT LINK
Implemented simple server client communication chat system based on the concepts of network layer applications.

PREDICTING PASSENGER SURVIVAL RATE IN TITANIC DISASTER
PROJECT LINK
Built decision functions using through regression that attempt to predict survival outcomes from the 1912 Titanic disaster based on each passenger's features, such as gender and age.

PUBLICATIONS

2018	Graph Based Approach to Document Topic Modelling - ICCCNT 2018
2018	Predicting Passenger Survival Rates on the Titanic - DOI
2018	Predicting User Group Activity Using Mobile Sensors - DOI
2017	SunPy Research Publications at Google Scholar and Zenodo
2016	Congestion Reduced Routing in WDM Network - DOI

ACHIEVEMENTS

2018	Recipient of Google India Challenge Scholarship
2018	Selected among a pool of applicants for internship at Inria, France
2017	Recipient of Microsoft Research India Scholarship - IIT Kharagpur
2017	Awarded RISE Conference grant within top 1000 Open Source Developers
2015	within top 10% of applicants in All India Engineering Entrance Exam
2012	Among top 100 students in Science Olympiad Foundation (SOF) in state
2012	Among top 100 students in International Mathematics Olympiad in state