Pallav Agarwal

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Education

Institute	Board / Branch	Result	Time
Indian Institute of Technology, Kanpur	B.Tech, Computer Science and Engineering	CPI 10/10	July 2014-Present
City Montessori School, Gomti Nagar	ISC (CISCE)	97.0%	2012-2014
Chinmaya Vidyalaya, Unchahar	AISSE (CBSE)	CGPA 10/10	2001-2012

Awards and Achievements

Scholastic Achievements

- Institute Rank 1 at IIT Kanpur after 5 semesters.
- Secured AIR 188 in JEE Advanced 2014
- Secured AIR 475 in JEE Mains 2014
- Secured AIR 255 in Kishore Vaigyanik Protsahan Yojana (KVPY) conducted by IISc Bangalore
- Qualified Regional Maths Olympiad (2012-13)
- Qualified National Talent Search Examination (NTSE) 2010, conducted by NCERT

Other Awards and Achievements

- Qualified Stage 1 of Build The Shield, an online CTF style security competition organised by Microsoft.
- Secured First in campus in Code.Fun.Do organised by ACAD Accelerator, Microsoft two years in a row (2014, 2015)
- Qualified ACM-ICPC Amritapuri regionals 2015 (team-based, programming competition) securing 87th place in the second round.

Projects

Creation of a Visual and Interactive Tutoring system for course ESC101

Supervisor: Prof. Amey Karkare *(May 2015 - 2016)*
- Wrote an interpreter for C in python to cover the topics taught in first year course, Fundamentals of Computing.
- Simulate a user's C program visually to help him understand core concepts
- Help students avoid common errors by using familiar visual cues (similar to those shown in class slides)

Robocon 2015

Supervisor: Prof. Bhaskar Dasgupta *(Oct 2014 - Mar 2015)*
- Developed robots to play doubles badminton on a real court against the opponent.
- Involved in programming the robot to predict the trajectory of shuttlecock using computer-vision techniques
- Used live video feed from Microsoft Kinect to track the shuttlecock
- Finished 11th among the 85 participating teams

Work Experience

Google Summer of Code (GSoC)

Gentoo Organisation **(Apr 2016 - Sep 2016)**
Supervisor: Sébastien Fabbro and Nitin Agarwal
- Created Orca, a continuous stabilization and build system to automatically build and test packages with respect to the Gentoo Operating System.
- Used Docker, Kubernetes to build a parallel and scalable server for the management of build jobs as well as built a job management server for volunteer computing for resource heavy jobs.

Joint Seat Allocation 2016   *(Nov 2015 - Jul 2016)*
Allocation of ~12 lakh students who appeared for JEE16
Supervisor: Prof. Surender Baswana
- Wrote the software to perform allotment of students to respective institutes (IITs, NITs, IIITs, GFTIs).
- Improved over previous year's algorithm to reduce the run time of the algorithm to about $(1/7)^{th}$ of the original.

Technical Strengths

Computer Languages: C/C++, Go, Python, NodeJS
Skills: Full Stack Web Development, OpenCV, AppDev
Tools: Git, LaTeX, Vim, Docker, Kubernetes

Relevant Courses Undertaken

Computers: Algorithms II, Operating Systems, Theory of Computation, Networks, Data Structures and Algorithms, Computer Organization, Fundamentals of Computing, Intro to Logic, Computing Laboratory, Artificial Intelligence Programming   ** -Ongoing*
Maths: Abstract Algebra, Linear Algebra & ODE, Discrete Maths, Complex Analysis, Intro to Calculus, Prob. Stats

Campus Activities

Coordinator, Programming Club	**(Present)**
Coordinator, Assn. for Computing Activities	**(Present)**
Student Guide, Counselling Service	**(2015 - 2016)**
Academic Mentor, Counselling Service	**(2015 - 2016)**