Aniket **Pandey**

SECOND YEAR UNDERGRADUATE · MATHEMATICS AND SCIENTIFIC COMPUTING

Indian Institute of Technology Kanpur

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Educational Qualifications

Year	Degree	Institution(Board)	CGPA/%
July'16	B.S Maths	Indian Institute of Technology, Kanpur	7.4/10.0
2016	AISSCE – XII	K.V R.K.Puram Sec-2, New Delhi	94.0%
2014	AISSE – X	K.V R.K.Puram Sec-2, New Delhi	10/10

Honors & Awards

COMPETITIVE EXAMS

2014	**All India Rank 1**, KVS Junior Mathematics Olympiad, with a record score of **92/100**	*KVS, India*
2013	**All India Rank 1**, FIITJEE Talent Reward Examination, perfect score of **214/214**	*FIITJEE India*
2012	**All India Rank 90**, National Talent Search Examination, **NTSE Scholarship**	*NCERT, India*
2014	**All India Rank 214**, Kishore Vaigyanik Protsahan Yojana, **KVPY Fellowship**	*IISc Bangalore*
2016	**All India Rank 908**, JEE Advanced, among **200,000** candidates	*IIT Guwahati*

OLYMPIADS

2014	**Regional Mathematics Olympiad**, Selected for **INMO** from Delhi Region	*HBCSE, Mumbai*
2014	**Junior Science Olympiad**, Among the top **35** merit students in **INJSO**	*HBCSE, Mumbai*
2015,16	**Astrophysics Olympiad**, Among the top **25** merit students in **INAO-Sr**, Twice	*HBCSE, Mumbai*

Work Experience

Security Analyst Intern   *New Delhi, India*
LUCIDEUS TECHNOLOGIES   *Nov. 2017 - Jan. 2018*

- Developed and deployed a secure social networking platform in LAMP Stack. Assessed its vulnerability against OWASP top 10 attacks and improved the security.
- Extensively used VAPT tools like Metasploit, Wireshark, Xerosploit, Nessus, Maltego and many more.
- Researched cyptographical model implementation in Network and Wireless Security, analysed WEP encryption weaknesses and exloited using aircrack-ng.
- Reverse engineered Windows applications to understand and mitigate common security flaws.

Full Stack Web Development   *Kanpur, India*
PROGRAMMING CLUB   *May. 2017 - July. 2017*

- Developed a scalable web application for nominations of various posts of Students' Gymkhana, IITK .
- Used Django along with Django-Rest-Framework and PostgreSQL for developing the portal.
- Implemented dynamic heirarchy levels, search feature and multiple model versions in the backend API. Designed a Responsive User Interface from scratch using Bootstrap and jQuery.
- Selected as one of the Top **6** projects from all Science and Technology Clubs to give final presentation.

Senior Web Executive   *Kanpur, India*
ANTARAGNI - 17   *July'2017 - Oct'2017*

- Used the full **MEAN Stack** in Typescript for a fest webapp and its admin control panel.
- Dynamic website with content easily changeable via the control panel. Supported Android App with an API.
- Technologies Used - NodeJS, AngularJS, MongoDB, ExpressJS and more

Projects

Computational Complexity Theory
SEMESTER PROJECT, ASSOCIATION COMPUTING ACTIVITIES

Kanpur, India
2nd Semester

- Reading Project on Theory of Computation. Studied about non-deterministic complexity classes eg. NP, NP-Complete, NP-Hard.
- Researched the fundamental working of **Turing Machine** and its properties. Analyzed famous NP-Complete problems, e.g SAT, Hamiltonian Path, Travelling Salesman etc.
- Understood the implication of Complexity Theory in Quantum Computing and Cryptography.

Graph Theory and Algorithms
SEMESTER PROJECT, STAMATICS

Kanpur, India
3rd Semester

- Undergoing Research project on analyzing various Graph algorithms and their Time-Complexities.
- Investigated famous algorithms like Bellman-Ford , Dijkstra and implemented them in real-life problems.

Extracurricular Activity

Stamatics, IIT Kanpur
SENIOR WEB EXECUTIVE

IIT Kanpur, India
April. 2017 - Present

- Developed and deployed the responsive website of Stamatics in Angular with custom domain *stamatics.org*.
- Dockerized the site and maintained the backend with real-time databasing.

Programming Club, IIT Kanpur
SECRETARY

IIT Kanpur, India
April. 2017 - Present

- Organized an introductory lecture on Python and Web-Scraping for peer students.
- Successfully coordinated with colleagues to install various distros of Linux in students' laptops.
- Prepared recruitment test questions and introductory blogs for Fresher students.

Hall captain, Marathas
TAKNEEK - 17

IIT Kanpur, India
August. 2017

- Led the pool to victory in the Inter-hostel technical competition, *Takneek*
- Also won the maiden trophies of Astronomy and Programming

Skills & Interests

Research Interests	Network & Web Security, Memory Management, Theory of Computation, Algorithms
Programming	Python, C/C++, TypeScript, PHP, MySQL, Shell, Java, Haskell, Lua
Web Frameworks	Django, Express.js with Node.js, Codeigniter, Bootstrap, Angular
Utilities	Git, Vim, GDB, Docker, phpMyAdmin, Linux Shell Utilities, LaTeX

Relevant Coursework

Probability & Statistics*	Data Structures & Algorithms*	Abstract Algebra*
Introduction to Programming	Ord. Differential Equations	Real Analysis*
Introduction to Electronics	Set Theory & Math. Logic	Electrodynamics

* : Ongoing Course

Miscellaneous

- Developed an online treasure hunt portal for the annual intra-hostel event Odyssey.
- Cited in The Journal of Open Source Software(JOSS) for contributing to Astropy™
- Maintain a blog at aniketpandey.com (*link*) about Linux, Programming and VCS.
- Among the select freshers to complete PClub's *Getting first PR merged* challenge.