Aniket Pandey

Second Year Undergraduate • Mathematics and Scientific Computing

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EDUCATION

IIT KANPUR
B.S in Mathematics and Scientific Computing
July 2016- 2020 | CPI: 7.4

K.V R.K.PURAM, SEC-2
AISSCE, CBSE, Overall: 94.0%
May 2016 | New Delhi, India

K.V R.K.PURAM, SEC-2
AISSE, CBSE: 10 CGPA
May 2014 | New Delhi, India

RELEVANT COURSES

Computer Systems Security (*i*)
Data Structures & Algorithms (*i*)
Introduction to Programming
Probability & Statistics (*i*)
Linear & Abstract Algebra (*i*)
Discrete Mathematics
Set theory & Mathematical Logic
Real Analysis & Differential Eqns.
Introduction to Electronics
 (*i* : Ongoing Courses)

SKILLS

PROGRAMMING
Python • C • C++ • Typescript
PHP • SQL • Javascript • Shell

Familiar:
Java • Perl • Lua • Haskell

WEB/FRAMEWORKS
Django* • Full MEAN Stack
LAMP Stack • Codeigniter
(* : Proficient)

OPERATING SYSTEMS
Kali Linux • Arch Linux • Ubuntu
Linux Mint • Microsoft Windows

UTILITIES
Docker • MongoDB • LaTeX • Vim
Git • GDB • Linux Shell Utitlities
phpMyAdmin • Xampp

VAPT TOOLS
Metasploit • Wireshark • Nmap
Burpsuite • Sqlmap • Aircrack-ng
Ettercap • Xersploit • Hashcat

INTERESTS

System Administration • Open Source
Web Development • Cyber Security
Python/Shell Scripting • Cryptography

EXPERIENCE AND PROJECTS

SECURITY ANALYST INTERN | Nov'17 - Jan'18
Lucideus Technologies, New-Delhi
- 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.
- Researched cyptographical model implementation in Network & Wireless Security, analysed WEP encryption weaknesses and exloited it using aircrack-ng tool suite.
- Reverse engineered Windows applications to mitigate common security flaws.

GYMKHANA NOMINATION PORTAL | May'17 - July'17
Summer Project , Programming Club
- Developed a scalable web application for nominations of Students' Gymkhana, IITK.
- Used Django along with Django-Rest-Framework and PostgreSQL database.
- Implemented dynamic heirarchy levels, search feature, django-filter and multiple model versioning in the backend API, extended it to include automated emailing.
- Created custom user authentication backend with Django SMTP integration.

SENIOR WEB EXECUTIVE | Apr'17 - Mar'18
Stamatics, Departmental Association
- Developed and deployed the website of Stamatics in Angular (*stamatics.org*)
- Dockerized the site and maintained the backend with real-time databasing.

Antaragni'17 & Techkriti'18
- Used the full MEAN Stack for a fest registration portal and its admin control panel
- Technologies Used - NodeJS, ExpressJS, Angular4, MongoDB (full Typescript)

COMPUTATIONAL COMPLEXITY THEORY | Feb'17 - May'17
ACA Project under Prof. Rajat Mittal
- Reading Project on Theory of Computation, Complexity Classes & Cryptography.
- Researched the fundamental working of **Turing Machine** and its properties
- Analyzed famous NP-Complete problems, e.g Hamiltonian Path, Travelling Salesman

GRAPH THEORY & ALGORITHMS | Oct'17 - Dec'17
Stamatics Project under Prof. Amit Kuber
- Research project on analyzing various Graph algorithms and their complexities.
- Investigated famous algorithms like BFS, DFS, Dijkstra & Bellman-Ford.

AWARDS AND ACHIEVEMENTS

Year	Rank	Description
2014	AIR 1	KVS Junior Mathematics Olympiad, with a record score of **92**/100
2012	AIR 90	NTSE Scholarship Examination, NCERT & Govt. of India
2014	AIR 214	KVPY-SA Fellowship Examination, IISc Bangalore
2016	AIR 908	JEE Advanced 2016, IIT-Guwahati
2014	INJSO	Amongst the top **36** merit students selected in Junior Science Olympiad
2016	INAO-Sr	Amongst the top **25** merit students selected in Astrophysics Olympiad

MISCELLANEOUS

Secretary, Programming Club
- Organized an introductory lecture on Python and Web-Scraping for peer students.
- Helped install various distos of Linux in students' laptops during Linux Install Fest.
- Prepared recruitment test questions and introductory blogs for Fresher students.

Hall Captain, Takneek 2017
- Led the pool to victory in the Inter-hostel technical competition, *Takneek*.
- Also won the maiden trophies of Astronomy and Programming.

Hobbies/Citations/PORs
- Secretary of *Programming Club*, *Astronomy Club* & *Rubik's Cube Hobby Group*
- 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