

AKHILESH SHARMA

Final Year Undergraduate
Computer Science Engineering

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EDUCATION

Year	Degree	Institute	CPI/%
2018 - 2022	B.Tech in Computer Science Engineering	Indian Institute of Technology, Kanpur	9.1
2018	Class 12 th – CBSE Board	Kendriya Vidyalaya Pitampura, New Delhi	91.8%
2016	Class 10 th – CBSE Board	Kendriya Vidyalaya Pitampura, New Delhi	9.4

SCHOLASTIC ACHIEVEMENTS

- Secured **206 AIR** in IIT - Joint Entrance Examination Advanced 2018 among **0.2 million candidates**
- Achieved **282 AIR** in IIT - Joint Entrance Examination Main 2018 out of **1.3 million candidates**
- Secured **All India Rank - 398** in Kishore Vaigyanik Protsahan Yojana National Science Fellowship Program (KVPY) 2016

PROGRAMMING ACCOLADES

- Secured a rank **54 among 11,000+ participants** in **Google Kickstart Round D** held worldwide (Username - [Dragnoid99](#))
- Secured a rank **94 among 12,000+ participants** in **Google Kickstart Round C** held worldwide (Username - [Dragnoid99](#))
- Secured a rank **324 (8th among Indians)** in **Google Code Jam Round 1B** held worldwide (Username - [Dragnoid99](#))
- **Codeforces**: Highest rating of **2324 (International Master)** and among **top 25 coders in India** (Username - [Dragnoid99](#))
- **AtCoder**: Highest rating of **2007** and **currently Ranked 39 all over India** (Username - [Dragnoid99](#))
- Tested and participated in **Kick Start Internal Round Gecko** and currently **Ranked 3** (ongoing contest)
- Tested and participated in **Code Jam Internal Round Hydrogen** and secured **Rank 72**

WORK EXPERIENCE

Software Engineer Intern

May'21-Aug'21

Online Fleet Management Team, Google India, Bengaluru

- Improved the Quality of Service of the applications and the resource utilization of the nodes in the Kubernetes Cluster
- Developed a QoS driven Custom Scheduler and scheduled the pods using the custom Kubernetes Scheduler
- Conceptualized a Experimental Framework to test and measure the performance of various Kubernetes Schedulers
- Formulated an algorithm to incorporate the Borg reservation concept while scheduling pods in Kubernetes Cluster
- Using Kubernetes custom scheduler will result in lower penalties and cost savings for the customers

PROJECTS

Compiler Design

Jan'21-Apr'21

Project Supervisor: Dr. Amey Karkare, Department of Computer Science & Engineering, Indian Institute of Technology Kanpur

- Worked in a team of five members to implement a working compiler for **ANSI standard C (C89)** to **Intel x86(64)** assembly
- Used **flex** and **bison** tools for lexical analysis and parsing the language, as well as intermediate level code
- Implemented support for basic features of C, followed GNU assembler format to support C-library functions

A Game Theoretic approach towards Fake news minimization

Sept'20-Dec'20

Project Supervisor: Dr. Swaprava Nath, Department of Computer Science & Engineering, Indian Institute of Technology Kanpur

- Designed a model for fake news minimization in a Game theoretic setting after careful literature review on the topic
- Compared strategies based on Degree & Betweenness centralities and other network properties to place oracles and sources
- Simulated the model on random and available data sets and presented our results in the our report

Operating Systems

Sept'20-Dec'20

Project Supervisor: Dr. Debadatta Misha, Department of Computer Science & Engineering, Indian Institute of Technology Kanpur

- Coded basic debugger capable of inspecting user register values at different instructions using breakpoints and created various functions to temporarily enable, disable, add and remove breakpoints
- Implemented various operating system designs such as file system layer, multilevel page tables and virtual memory block on GemOS

TECHNICAL SKILLS

Languages: C | C++ | Python | CSS | HTML5 | \LaTeX

Frameworks/Libraries: Tensorflow | Numpy | Keras | Django

Tools & Softwares: Git/GitHub | Docker | AutoCAD | Autodesk Inventor | Fusion 360 | Matlab

KEY PERSONAL SKILLS

- Focused and goal driven with strong work ethics
- Proficiency in grasping new technical concepts quickly
- Self motivated, team builder with a good interpersonal communication and analytical skill
- Intuitive and with a natural bent for innovation

POSITIONS OF RESPONSIBILITY

Assistant Coordinator

Mar'20- Feb'21

Students' Placement Office, IIT Kanpur

- Responsible for inviting companies for the placement and internship season 2020-21 of IIT Kanpur
- Developed liaisons with more than 50 corporate teams to ensure participation in the internship drive
- One of the leading members of a team of 80 members responsible for coordinating the entire internship season 2020-21

Student Guide

Jul'19- Apr'20

Counselling Service

- Assisted in organising workshops and sessions for the incoming batch of **1000+ students** during Orientation Program'19
- Guided 6 counselees throughout their first year and helped them in academics and extracurricular activities.

RELEVANT COURSE WORK

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|--------------------------------|------------------------------------|---|
| ➤ Fundamental of Computing | ➤ Algorithms-II | ➤ Computer Networks |
| ➤ Data Structures & Algorithms | ➤ Operating Systems | ➤ Compiler Design |
| ➤ Theory of Computation | ➤ Introduction to Machine Learning | ➤ Software Development & Operations |
| ➤ Computer Organisation | ➤ Linear Algebra & ODE | ➤ Real Analysis & Multivariate Calculus |
| ➤ Discrete Mathematics | ➤ Mathematical Logic | ➤ Probability for Computer Science |

Certified Coursera Courses :-

- | | | |
|---|----------------------------------|--------------------------|
| ➤ Machine Learning by Stanford | ➤ Improving Deep Neural Networks | ➤ Tensorflow in Practice |
| ➤ Structuring Machine Learning Projects | ➤ Convolutional Neural Networks | |
| ➤ Neural Networks and Deep Learning | ➤ Sequence Models | |