# PURNIMA LAL

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Responsible, grounded and solution-oriented Computer Engineering Junior with a passion for learning. Harnessing the power of technology to give impactful shape to ideas. Currently exploring the Computer Vision and Data Analytics fields. Proven history of team-oriented technical and social work projects.

## EDUCATION

### Bachelor of Engineering (BE) in Computer Engineering
*Thapar Institute of Engineering and Technology, Patiala, India*        *July, 2022*

Current CGPA (5 semesters): 7.0 (on a scale of 10.0)
Major in Data Science & Minor in Corporate Finance

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### Senior Secondary Education
*J.C.B. Senior Secondary School, Shimla, India*        *May, 2018*

Grade: 81.4% | Branch: Non-Medical (PCM) + English | Board: CBSE

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### Secondary Education
*Loreto Convent Tara Hall, Shimla, India*        *March, 2016*

GPA: 10.0 (on a scale of 10.0) | Board: CBSE

## EXPERIENCE

### Founder & Lead Ambassador of the Student Ambassador Program
*Thapar Institute Counseling Cell, TIET*        *April 2020-August 2020*

- Spearheaded the entire set-up for conducting Counseling Sessions and 15+ Therapy Programs for 1000+ students.
- Recruited and mentored a team of 25+ students for the Ambassador Program.
- Responsible for daily functioning of the cell and offered a safe, accessible space for students to ensure their mental wellbeing.
- Increased the % of students seeking counseling from 6% to 18% in a period of 3 months.
- Boosted awareness about the cell and its services from 24% to 78%.
- Received a Letter of Recommendation (accessible here).

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### Incoming Vice President, Board of Directors
*Rotaract Club of TIET, RID3090*        *April 2020-June 2020*

- Served on the board of directors and as an ex-officio member of all committees.
- Assisted the President with functioning of the club.
- Acted as the "officer at large," responsible for all assignments and projects of the Club.
- Retained 90% of the members for the next term through regular club meetings and member engagement.

### Council Member, Board of Directors
*Rotaract Club of TIET, RID3090*        *July 2019-March 2020*

- Took on a leadership role in heading 7 and coordinating 9+ social service projects conducted by 40+ Rotaractors.
- Conducted recruitments for Rota Year 2019-2020 and recruited 25+ Rotaractors.
- Based on work done as a Council Member was elected as the Vice-President for the Rota Year 2020-21.
- Received a Letter of Recommendation accessible here.

### Chief Editor
*Rotaract Club of TIET, RID3090*        *August 2018-July 2019*

- Published the 1st Quarterly Newsletter of the club.
- In charge of the Social Media Handles of the club.
- As an executive member, coordinated 5 social service projects conducted by 20+ Rotaractors.

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### Executive Member, Technical & Event Management Department
*Microsoft Student Chapter, TIET*        *July 2018-May 2020*

- Facilitated the organization of Hacktoberfest 2019 and Makeathon 2019.
- Conducted TechMeet 2019, a technology seminar for 1st year students.
- Organized various workshops on Ethical Hacking and Python Programming.

## SKILLS

### Technical Skills

**Programming Languages:**
Python, R (basics), C++, HTML5, CSS

**Frameworks, Libraries & Softwares:**
OpenCV, Pandas, Numpy, Matplotlib, Seaborn, Scikit-learn, Pycaret, Anaconda, RStudio, VS Code

**Tools & Utilities:**
Git, MySQL, Jupyter Nb, MS Office, Linux, firebase

**Relevant Coursework:**
Software Engineering (Agile Model, Waterfall Model), DBMS, Probability & Statistics, Corporate Finance, Computer Networks, Operating Systems, Data Structures and Algorithms, AI, Data Science Fundamentals

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### Soft Skills

Team Leadership | Project Management | Team Work | Organizational Skills | Critical Thinking | Analytical Skills | Creativity & Problem Solving | Presentation & Public Speaking | Strong Written & Oral Communication

## PROJECTS

### Capstone Project | BookWonk – an Automated Book Reader with Voice Assistance        *(Ongoing)*

- Designing a hardware tool meant to read books/printed materials out loud including an automatic page turner and a camera powered by servo motors and Arduino.
- Offered functionalities –
  - Voice assistance & Search by voice for the hardcopy in both English and Hindi languages.
  - Conversion of the hard copy (actual book) to a soft copy in a readable pdf file.
  - Viewing of the pdf file supporting voice assistance, search by voice and notes by voice through the web application built using HTML, CSS, JS, Django and hosted on GCP.
- Tech Stack used – OpenCV, PyTesseract, pyttsx3, PIL, PyAudio, Googletrans API, Google-Cloud-Speech API, Google-Web-Speech API, Arduino.

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### tiAssist – a web app

- Built a web app hosted on firebase.
- Web app aims at fulfilling all academic needs of TIET students by providing all study material.
- Built using HTML5, CSS3, JavaScript and Bootstrap.
- Web app link - https://ti-assist.web.app/

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### Image, Video and File Processing using Python Libraries

- Built a bubble sheet multiple choice scanner and test grader using OMR, Python and OpenCV.
- Developed a program to enable cartoonization of an image using OpenCV and Python.
- Built a python program to convert colored videos to gray-scale and compress videos using OpenCV and Python.
- Explored file processing on Kaggle datasets using Pandas, Numpy and Matplotlib.

## VOLUNTEERING

- Attended Women in Data Science (WiDS) Worldwide Conference March, 2021.
- Attended the 8th International Data Science Summit February, 2021.
- Secured a registration scholarship to attend the 5-day Open Source Summit + Embedded Linux Conference Europe 2020.
- Attended RAISE2020 – Global AI Summit hosted by Government of India.
- Secured Special Mention 1 at Intra Thapar Model United Nations 2018, Patiala.
- Won the Gold Medal – Table Tennis in Annual Sports Meet of TIET (Thaparlympics 2018-19) & in the Annual TIET Branch-Wise Sports Meet 2018-19.
- Hosted the Annual District Conference of Rotary International District 3090 in 2019.

## EXTRACURRICULAR

- Member of the Women Who Code Bangalore Network since October 2020.
- Project Chair for SarvShakti, a sanitation and pad distribution drive conducted in 3 government schools of Patiala. 2500+ sanitary pads were distributed amongst 500+ school girls.
- Project Chair for Blood Donation Camp organized in TIET. A record breaking 316 blood units were collected.
- Conducted monthly visits to the Old Age Home in Patiala.