

TnP Vision: Unified Platform for Transparent and Skill-Centric Campus Placement Management

Thejas Raja Eladassery*, Sanika Kalaskar†, Aditi Jadhav‡, Shreya Gaikwad§ Dr.V.G.Kottawar¶

§ Artificial Intelligence And Data Science D.Y.Patil College Of Engineering, Akurdi Pune, India

Abstract- Many higher education institutions still have a disjointed, manual, and ineffective campus placement process, which results in low transparency, little student visibility, and less than ideal recruitment results. In order to modernise and simplify campus placement management through a centralised, skill-centric ecosystem, this paper introduces TnP Vision, a unified platform driven by artificial intelligence. Student profiles, academic verification, recruiter communication, and placement procedures are all combined into one digital platform by the system. While faculty-driven verification guarantees the legitimacy and authenticity of accomplishments, TnP Vision uses Natural Language Processing (NLP) to extract and classify skills from unstructured student data. For students, teachers, recruiters, and administrators, the platform offers role-based dashboards that allow for customised access to insights, automated portfolio creation, and structured interview feedback. Real-time analytics also facilitate institutional performance monitoring and data-driven decision-making. When compared to conventional placement systems, experimental evaluation shows that the suggested system greatly increases student engagement, data reliability, and candidate discovery efficiency. TnP Vision improves employability outcomes and builds recruiter trust by switching from resume-based evaluation to skill-based discovery and verified profiles. By integrating AI-driven skill identification, academic validation, and integrated workflow management into a single scalable platform, the suggested solution fills a significant gap in current placement systems and offers a revolutionary approach to campus recruitment in higher education.

Keywords— Campus Placement Management, Artificial Intelligence (AI), Skill-Based Recruitment, Natural Language Processing (NLP)

I. INTRODUCTION

Campus placement is really important because it helps students get jobs after they finish their studies. It also affects how people see the school. These days it is very competitive so the school needs to have a placement process. This process affects whether students can get a job if the school can work with companies and how good the school is seen as.

A lot of schools are still using old ways to do campus placement. They use things like spreadsheets, emails and different platforms that are not connected. This leads to a lot of problems like student information not being correct people not knowing what is going on and the people in charge of placement having to do a lot work. Students have a time showing what they can do and what they have done because

all their information is in different places. Companies have a time finding the right students because they do not have a good way to look at student information. Teachers and school leaders also do not know how students are doing. If they are ready for a job. [1].

New technologies like Artificial Intelligence and data analysis are getting better and better. We need systems that can do things automatically make sure information is correct and give us information. These days companies are looking for students who have the skills not just looking at their resumes. We need platforms that can help with this.

That is why we made TnP Vision, a platform that uses Artificial Intelligence to help with campus placement. It puts all student information in one place so

students, teachers and companies can all see it. It helps students get jobs makes it easier for them to use the platform and helps the school make decisions.

This research is, about making and testing TnP Vision. We want to show that our platform can make campus placement better and help students get jobs. We think TnP Vision can make a difference. It can help schools work better with companies. Make sure students have the skills they need to get a job. Campus placement is very important. TnP Vision can make it more efficient and effective. [2]

II. LITERATURE REVIEW

The campus placement and recruitment systems have changed a lot because of technologies like Artificial Intelligence and data analysis. Most of the research is three main things: the problems with the old placement system using Artificial Intelligence to analyze resumes and smart job matching systems.

1. Old Campus Placement Systems

A lot of studies show that the old way of doing campus placements is very manual and not very organized. They use things like spreadsheets, emails and different software tools that do not work together. This leads to mistakes in the data delays in communication and more work for the administrators. Because there is no one platform that everyone uses it is hard for people to work together and track how the students are doing. This makes it hard for students to get ready and for recruiters to feel confident. [3]

2. Using Artificial Intelligence to Look at Resumes and Make Candidate Profiles

New research is looking at how to use Artificial Intelligence to evaluate candidates. Systems that can read resumes can take out information like skills, education and experience from documents that are not very organized. This makes the process of screening candidates faster.

Studies show that using Artificial Intelligence to screen resumes can save time make the process more accurate and make it possible to recruit

people.. The old systems that track applicants still rely too much on matching keywords, which can miss good candidates because of how their resumes are formatted or because of the context.

New ways of doing things use machine learning and other models to understand the meaning of resumes which makes it easier to find and classify skills. With these new ways there are still problems, like dealing with resumes that are formatted differently resumes in different languages and understanding the context. Campus placement and recruitment systems are still using Artificial Intelligence and data analysis to get better. [4]

3. AI-Driven Recruitment and Job Matching Systems

Artificial intelligence is used a lot in systems that match people with jobs. These systems use a mix of things like what people like, how similar their skills are what happened in the past to make better suggestions. Artificial intelligence can also do things like find people for jobs check if they are a fit and set up interviews, which makes the process faster and fairer.

New things like Large Language Models and systems that have parts working together are making the recruitment process better. These systems can look at people in a complete way by using information from outside and criteria that is specific to a particular field. [5]

4. Limitations of Existing Systems

Even though things have improved a lot there are still some problems, with the systems we have now.

- They do not work well together: Most solutions only do one thing, like look at resumes or make job lists of being a complete system.
- They do not check if information is true: Most platforms do not verify if the things students say they achieved are actually true.
- They do not get everyone working together: Many systems do not connect students, teachers, recruiters and administrators in one process.

- They can be biased: Artificial intelligence systems can be unfair. It is not clear how they make decisions.
- They rely much on resumes: Many platforms still use resumes instead of looking at people's skills, which makes it hard to really know how good someone is. [6]

5. Research Gap

When we look at what has been written it is clear that we need a system that does everything. This system should be able to use intelligence to figure out what skills people have checked if the things people say they achieved are true give people feedback and numbers in real time let everyone work together in one place. [7]

III. METHODOLOGY

The TnP Vision system is made to make the campus placement process easier. It uses an combined approach to automate things use artificial intelligence and manage data in one place. The way it works is by designing organizing and putting the system into action. This involves four groups of people: students, faculty, recruiters and people who run the institution.

1. System Architecture

The TnP Vision system has layers. These include:

- User Interface Layer: This gives each group of people their dashboard. For example students, faculty, recruiters and administrators all have their own.
- Application Layer: This handles the business side of things like managing profiles, matching jobs and automating workflows.
- AI Processing Layer: This uses Natural Language Processing to find out what skills people have and to process data in a way.
- Database Layer: This stores information about students, companies and placement activities in a way.

All parts of the system are connected through a database. This means that all the data is synchronized in time and all the parts can communicate with each other easily. [8].

2. Data Collection and Input

The system starts by collecting data about students. Students can. Enter information, about:

- What they have achieved academically
- Projects they have worked on and internships they have done
- Certifications they have and skills they have learned This data can be organized or unorganized.

The TnP Vision

system makes sure all the information is consistent and easy to understand no matter how it was entered.

3. AI-Based Skill Extraction

The system uses Natural Language Processing techniques to find the skills and keywords from what the students write. This is how it works:

- The text is cleaned up. Broken down into smaller parts
- The system identifies the skills and technologies mentioned
- The skills are then classified and labeled

This step takes the information and turns it into a structured format that can be searched. This makes it easy to find the skills and keywords in the student inputs. The AI-Based Skill Extraction is very important because it helps to extract skills and keywords. [9]

4. Faculty Verification Mechanism

To make sure the information is accurate the system uses a process where a human checks the data. This is how it works:

- The skills and achievements that are extracted are sent to the faculty members
- The faculty members. Either approve or reject the information
- The information that is approved is marked as verified. Can be seen by the recruiters

The Faculty Verification Mechanism is very useful because it increases the trust and credibility of the student profiles. The faculty members play a role in verifying the skills and achievements of the students.

5. Profile Generation and Portfolio Building

Once the information is verified it is all put together into a profile, for each student:

- A portfolio is created that shows off the students skills
- The skills are grouped together in a way that makes sense
- The portfolio is updated all the time with information This means that students do not need to make a traditional resume. The Profile Generation and Portfolio Building is very helpful because it provides a view of what the students can do. The student profiles are very comprehensive. Show all the skills and achievements of the students. [10].

6. Job Matching and Recruitment Workflow

The platform helps us find the candidates by using their skills.

It does this through:

- Recruiters posting job roles with the skills they need
- The platform filtering candidates based on their skill tags
- Then shortlisting them based on some predefined criteria This way we do not have to shortlist candidates. The platform does it for us in an efficient way. It uses data to make sure we get the candidates.

7. Feedback System

The system is also very interactive. It lets:

- Recruiters give feedback on interviews in a way
- Students see how they did and what they need to work
- Efficiency: It helps reduce the work we do by hand and gets things done faster
- Accuracy: It gets better at finding the skills and makes sure the data is reliable
- User Engagement: More students and recruiters are taking part
- Transparency: Everyone can see whats happening with placements and what the results are

When we compare it to systems this one does better in all the important areas.

The TnP Vision methodology brings together intelligence and human checking to manage data in one place. This makes the placement system easy to see and understand it works well. Can be used by many people. TnP Vision puts things in one place so it fixes the problems with other systems and makes campus recruitment work better overall. TnP Vision does this to make campus recruitment more effective, for the TnP Vision placement ecosystem

IV. RESULTS AND DISCUSSION

1. Student Activity Dashboard

The interface shows a page that puts everything in one place. It has information about what studentsre doing what they have achieved and what is happening with jobs. Things, like confirmed certificates, popular skills and current job openings make it easy to see and get to opportunities. It also shows how people are interacting with the interface like how many likes and views something gets and how connections people are making. This shows that people are using the interface more and getting more involved with student activity and student achievements and placement-related updates.

Students interact with each other by liking, commenting and recognizing each others work This helps students keep learning and getting better all the time.

Analytics and Reporting

There is a dashboard that shows us what is happening in time.

This is, for administrators and faculty. It shows us:

- How many students are getting placed and what the trends are
- How students are doing
- How different departments are doing
- How engaged recruiters are

All these insights help us make decisions and plan for the future. The Job Matching and Recruitment Workflow and the Analytics and Reporting help the Interactive and Feedback System work better.

System Evaluation

We judge the system on a things:

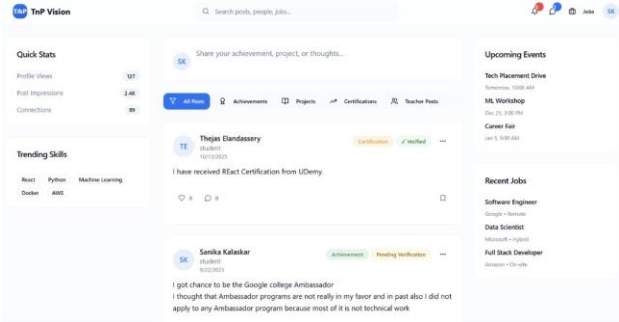


Fig. 1. Student Dashboard Feed

Job Opportunities Interface This system is really helpful for students because it lets them look at and apply for jobs that're available. They can see things, like what the job is, what skills they need if they got the job and how many other people are trying to get it. Students can pick jobs that're a good fit for them and their skills and then they can apply for those jobs right away. This makes it a lot easier for students to find a job. It helps them get the opportunities they want.

Student Profile and Achievements Module This thing is about making a complete student profile. It puts together details and skills and projects and certifications and the things students have achieved. Students can add achievements and update old ones. These achievements can be checked to make sure they are real or they can be marked as waiting to be checked. The layout is simple so it is easy to move around the parts like the school stuff and the posts. The student profile is like a resume that people can see on the computer. It helps students make an impression, on the people who are looking to hire them. The student profile is a help for students to get noticed by recruiters.

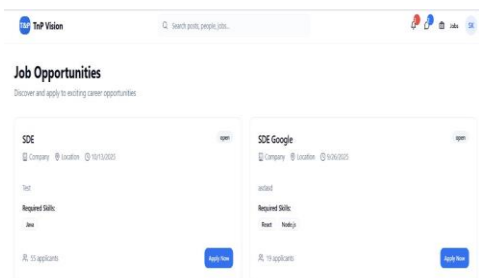


Fig. 2. Job Opportunities Interface

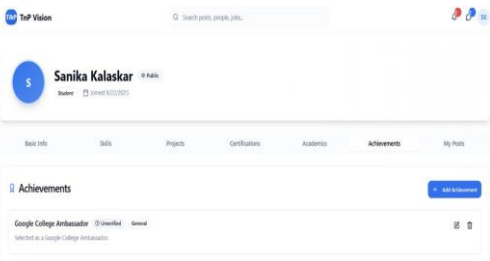


Fig. 3. Student Profile and Achievements Module

Teacher Guardian Dashboard

This dashboard helps teachers keep an eye on posts made by their students. It lets them review approve or track what students submit, like achievements and certifications. The dashboard shows numbers such as total posts, approved posts and posts that need reviewing. This helps teachers make sure student data is correct and real. It keeps the system trustworthy, by checking student submissions. Teachers can manage student posts in one place.

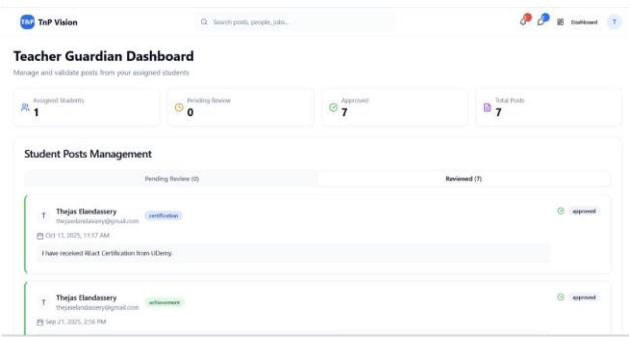


Fig. 4. Teacher Guardian Dashboard

Guardian Assignment and Workload Management

This interface helps administrators assign students to teacher guardians and manage how students are distributed. It shows details like which students are assigned and which are not which teachers are available and what the current guardian status is. The system lets administrators make changes, like switching or removing assignments, which makes management more flexible. The workload distribution section is also very useful because it helps balance how students each teacher has so teachers can keep a close eye on their students.

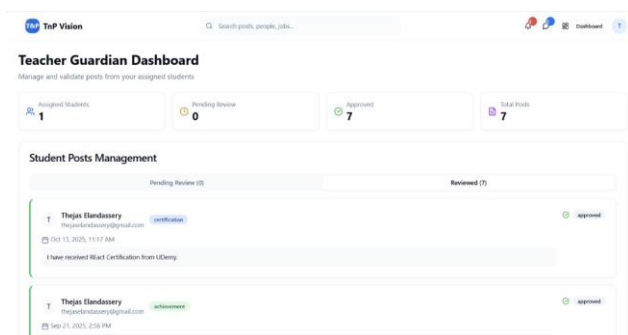


Fig. 5. Guardian Assignment and Workload Management

V. CONCLUSION

This paper is about TnP Vision, a platform that uses artificial intelligence to fix the problems with the old campus placement systems. The old systems have a lot of problems because they use different tools and do things by hand, which often leads to mistakes in the data people not knowing what is going on and students not getting the right job opportunities. This shows that we need a platform that's smart and can do everything in one place.

The TnP Vision system has a lot of features such as using artificial intelligence to figure out what skills students have by reading what they write having teachers check what students have achieved keeping all student information in one place and giving real-time information about what is happening. By looking at what skills students have of just looking at their resumes and by making sure the information about students is accurate TnP Vision makes the placement process more accurate, reliable and transparent. It also helps people work together better by giving each person their dashboard and automating some tasks.

The results of trying out the system show that it reduces the amount of work people have to do by hand helps recruiters see students gets students more involved and helps people make decisions based on data. Also the platform helps recruiters trust the information about students more because it is accurate and organized which leads to hiring outcomes.

In conclusion TnP Vision is a solution that updates the way campus placements are managed and makes it work like the industry does now. It not makes placements work better but also helps students get ready, for jobs and makes institutions work better. We might add features to the system in the future such as using data to predict what will happen suggesting jobs to students and working with other institutions to find recruits, which will make TnP Vision even more useful and helpful to people.

Acknowledgment

- We want to say thank you much to our project guide, Dr. V.
- G. Kottawar for helping us so much. The project guide, Dr. V.
- G. Kottawar was always there to support us and encourage us while we were working on this research work. His ideas and knowledge were very important in making this project good. We are also very thankful to our co-guide Dr. Aryani Gangadhar, for motivating us and giving us feedback. The co-guide, Dr. Aryani Gangadhar helped us a lot with her sug-gestions and ideas which made it possible for us to complete this work.
- We want to thank our project coordinators Dr. Deepali Sale and Mr. Bhushan N. Javare for guiding us and supporting us throughout the project. The project coordinators, Dr. Deepali Sale and Mr. Bhushan N. Javare helped us a lot with coordi-nating everything.
- Finally we want to thank our institution and all the teachers who helped us finish this research work. The institution and the teachers supported us. We are very grateful to them, for that.

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