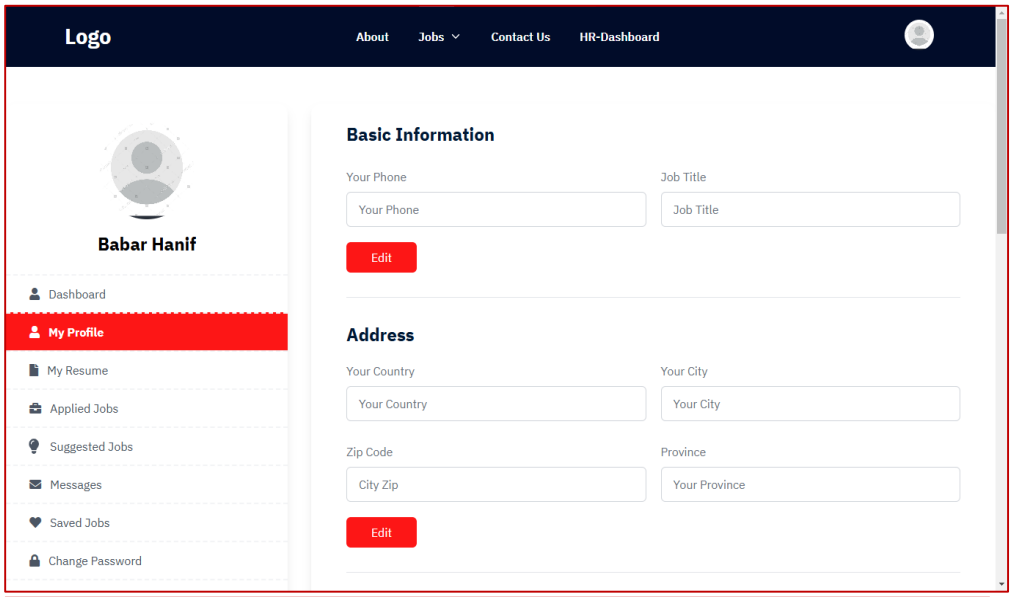
Final Year Project Showcase Batch 2021
Year 2025

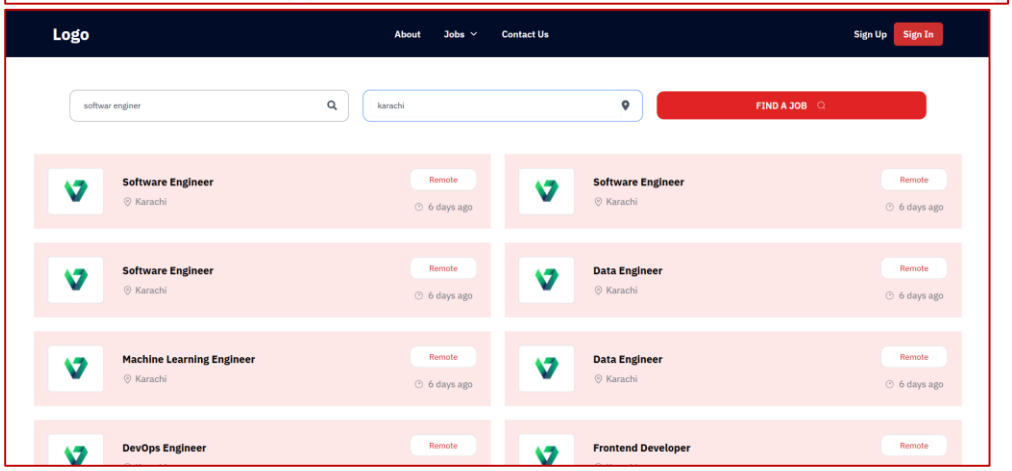
Department: Computer Science & Information Technology Programme: Computer Science & Information Technology	
1	**Project Title** **Smart Job Matcher Tailored Recommendations Using ML**
2	**Project Idea** A web-based platform that uses machine learning to match job seekers with relevant jobs based on their skills and recruiters with suitable candidates.
3	**Process** The platform collects user-provided details like skills, position, and location, then uses a hybrid ML algorithm (TF-IDF + Doc2Vec) to deliver accurate job–candidate matches with real-time updates.
4	**Outcome** An AI-powered web platform that efficiently matches job seekers and recruiters based on skills, position, and location, with a Gemini-powered resume analyzer for detailed candidate insights.
5	**Evidence (Theoretical Basis)** Smart Job Matcher is an AI-powered MERN stack web platform that connects job seekers and recruiters through intelligent matching based on skills, position, and location. It integrates a Gemini-powered resume analyzer and a real-time Application Tracking System (ATS) for transparent hiring. The system features separate dashboards for job seekers, recruiters, and admins, enabling efficient candidate filtering, status updates, and personalized job recommendations. Testing showed improved match accuracy and streamlined communication between recruiters and applicants
6	**Impact on Sustainability of Urban Regions or SDG-11 "Sustainable Cities and Communities"** Our platform supports SDG-11 by promoting inclusive employment in urban areas, reducing inequality in access to opportunities, and enhancing community well-being through fair and efficient recruitment.
7	**Competitive Advantage or Unique Selling Proposition** (Cost Reduction, Process improvement, Attainment of any SDG (Sustainable Development Goal), increase of market share or capturing new market or having superior performance over a competitor. In summary, any striking aspect of the project that compels the industry to invest in FYP or purchase it. Some detailed description is required in terms of how, why when what. You can select one or more from the following dropdown and delete the rest of them). Please keep relevant options, delete the rest of them, and correct the sequence
a	**Attainment of any SDG** (e.g. How it is achieved and why it is necessary for the region) **SDG 8 – Decent Work and Economic Growth:** Promotes employment by matching individuals with jobs that fit their skills and enabling companies to find suitable candidates efficiently. **SDG 9 – Industry, Innovation, and Infrastructure:** Utilizes machine learning and web technologies to build an innovative job recommendation system, fostering innovation and supporting resilient digital infrastructure.

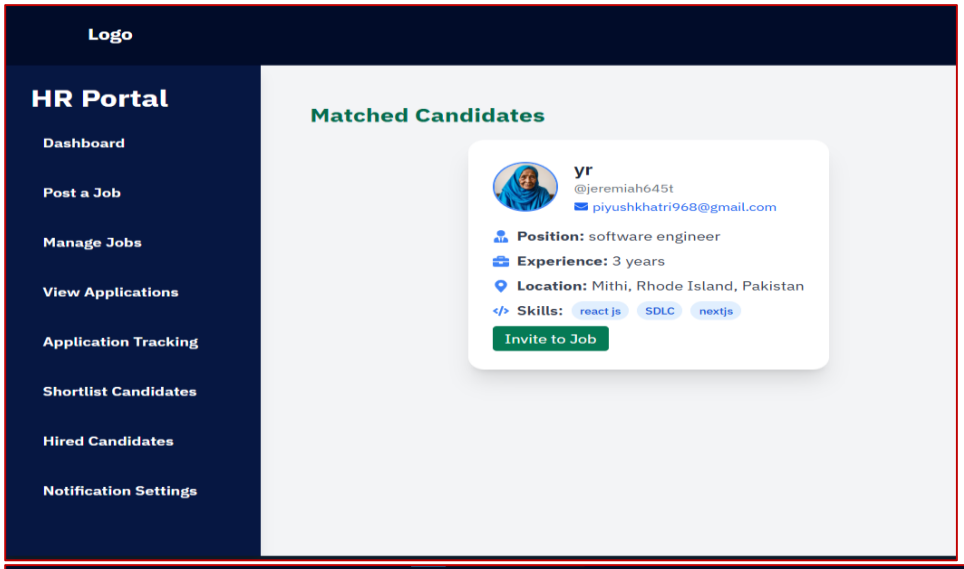
	SDG 10 – Reduced Inequalities: Ensures equal access to job opportunities regardless of location, gender, or background, reducing employment disparities.	
b	**Environmental Aspect** (e.g. carbon reduction, energy-efficient, etc.) By digitizing the recruitment process and reducing the need for physical advertisements, paper resumes, and in-person screening, our platform lowers paper waste and carbon emissions, making hiring more energy-efficient and eco-friendly.	
c	**Cost Reduction of Existing Product** Our platform reduces recruitment costs by automating candidate matching, resume analysis, and application tracking, minimizing the need for extensive manual screening and multiple hiring platforms.	
d	**Process Improvement which Leads to Superior Product or Cost Reduction, Efficiency Improvement of the Whole Process** (e.g. What is the issue is current process and what improvement you suggests) Current recruitment processes are time-consuming, involve manual screening, and often yield irrelevant matches. Our platform automates matching based on skills, position, and location, integrates a Gemini-powered resume analyzer, and provides real-time application tracking—reducing hiring time, improving match accuracy, and streamlining the entire process for both recruiters and job seekers.	
e	**Expanding of Market share** (e.g. how it expand and what is the problem with the current market Current job portals lack precise, skill-based matching and real-time application tracking, leading to inefficient hiring. Our AI-driven platform offers accurate recommendations, transparent tracking, and a user-friendly interface, attracting more users and enabling expansion into markets seeking smarter, faster, and fairer recruitment solutions.	
f	**Capture New Market** (e.g. Niche market or unaddressed segment) Targets niche segments such as skill-specific hiring, remote work opportunities, and underrepresented job seekers, offering AI-powered matching and equal access to opportunities—an area often overlooked by traditional job portals.	
g	**Any Other Aspect** The platform is designed for easy scaling, with potential integration of mobile apps, automated interviews, and skill-based testing, enabling adaptation to evolving market needs and technological advancements.	
8	**Target Market** (Industries, Groups, Individuals, Families, Students, etc) Please provide some detail about the end-user of the product, process, or service Industries and recruiters seeking efficient hiring solutions; job seekers including students, fresh graduates, and experienced professionals; organizations targeting skill-based recruitment; and urban job markets requiring faster, fairer, and more transparent hiring processes.	
9	**Team Members** (Names along with email address	Babar Hanif [hanif4401761@cloud.neduet.edu.pk] Piyush Khatri [piyush4407240@cloud.neduet.edu.pk] Pawan Kumar [KUMAR4408887@cloud.neduet.edu.pk]

10	**Supervisor Name** (along with email address)	Engr. Anees Ahmed [anees.ahmed22@neduet.edu.pk]

Pictures (If any)



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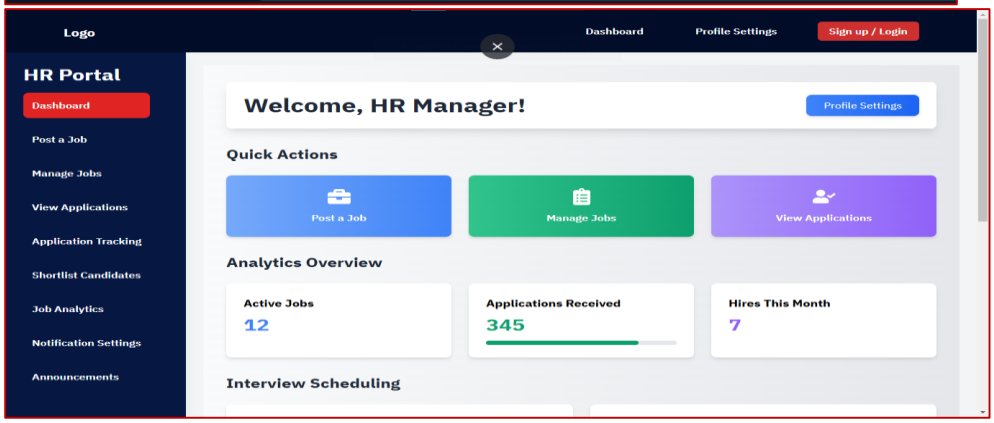
Matched Candidates
yr
@jeremiah645t
piyushkhatri968@gmail.com
Position: software engineer
Experience: 3 years
Location: Mithi, Rhode Island, Pakistan
Skills: react js SDLC nextjs
Invite to Job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Welcome, HR Manager!
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Applications Received
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7
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