

**A web-based matchmaking application that can accurately identify the requirement of a certain academic program and a suitable lecturer**

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# Introduction

## Background

The Sri Lankan academic sector comprises a combination of public and private universities that together shape higher education in the country. Public universities, primarily government-funded and highly competitive, cater mainly to students who achieve top marks in national examinations. These institutions are known for their historic significance and academic rigor, especially in fields such as medicine, engineering, and law (Nanayakkara, 2020). However, due to capacity limitations, a significant portion of qualified students are unable to gain admission to these universities and, as a result, may either pursue degrees at private institutions or seek opportunities abroad. Private universities have grown in prominence, particularly in disciplines such as business management and information technology, and typically operate with the approval of the University Grants Commission (UGC). While some private universities maintain high standards and affiliations with international institutions, the quality of education across the private sector varies widely (Perera & Silva, 2019).

Despite the growth of both public and private institutions, the quality of academic delivery in Sri Lanka faces several challenges. Public universities often struggle with limited funding, outdated infrastructure, and faculty shortages, which can hinder students’ access to modern educational resources (Fernando, 2021). Conversely, private universities, while addressing the demand for higher education, frequently rely on part-time or visiting lecturers—often industry professionals with minimal academic teaching experience—resulting in inconsistent teaching quality (De Silva, 2022). This can contribute to a below-average academic experience where students may not receive the rigorous training needed to meet international standards. Issues such as large class sizes, outdated curricula, and insufficient practical training further exacerbate these concerns, leading to frequent student complaints about the lack of industry-ready skills. Although the Sri Lankan higher education system continues to expand, achieving consistent academic quality and producing skilled graduates for the workforce remains a challenge (Wickramasinghe & Jayasinghe, 2023).

## Problem Statement

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## 1.3   Research Question

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## Research Aim

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## Motivation

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## Research Objectives

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## Resource Requirements

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## Data Management

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## Legal, Ethical, Social and Professional impacts

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## Rich picture

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# Draft Literature Review

## Domain of concern

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## Existing systems

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## Algorithms, Design and Classifiers

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### Convolution Neural Network

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### Transfer Learning

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## Reflection

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## Conclusion

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# Methodology

## Research paradigm

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## Research Approach

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## Fact collection

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### Questionnaire

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### Formal Interviews

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## Analysis

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## Design

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### High-level architectural Diagram

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## Evaluation

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## Gannet chart

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**References**