

**TULONGARAL+: AN AUTOMATED SEARCH APPLICATION FOR FILIPINO  
STUDENTS**

**SOFTWARE ENGINEERING PROJECT**

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STUDENTS**

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of Computing and Information Science- Department of  
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Course in Software Engineering

By

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## **CHAPTER I**

### **THE PROBLEM AND ITS BACKGROUND**

This chapter of the paper presents the background, project context, objective of the project, scope and limitation of the project, significance, and definition of terms.

#### **Introduction**

Scholarship is part of the Filipino student's chance to further their studies without financial burden. The current methods available to students for finding scholarships are often complicated and inefficient [1]. In surveys conducted among Filipino students, 45% undergraduate report that the current scholarship search process are confusing and time-consuming, 75% often relying on word-of-mouth, or school offices [2]. This scattered approach reduces the chance to access scholarship especially in geographically isolated areas here at Ilocos Norte.

#### **Background**

The pursuit of higher education in the Philippines is a challenge for many students, with financial constraints as a primary barrier for many students. Studies indicate that nearly 38% of college aged students do not pursue higher education due to financial reasons, and 16% choose to enter the workforce to support their families. This financial burden contributes to the stress experienced by Filipino students, nearly 20% of basic

education dropouts cite insufficient financial resources as the main reason for leaving school [2]

While the government and private financial aid programs, such as the Commission on Higher Education (CHED) scholarships, Tulong Dulong Program (TDP), and Tertiary Education Scholarship (TES) play a crucial role in reducing these concerns, the application itself presents its own set of challenges [3]. Students frequently encounter insufficient information regarding specific program, resulting in missed application opportunities and creating significant barriers to access. Furthermore, some scholarship programs focus exclusively on particular fields, leading to unequal opportunities for students pursuing other academic disciplines [4]

## **Project Context**

The project will be conducted to address the significant challenges Filipino students face in finding scholarship opportunities due to the absence of a centralized platform leads to inefficiencies, including redundant validations and prolonged fund release schedules. Scholarship opportunities in the Philippines are often fragmented across different agencies and platforms, causing confusion and missed chances for students [5][6].

The majority of scholarship management systems in the country utilize manual, paper-based, or poorly integrated digital workflows, rendering the process laborious and time-consuming for applicants [7]. Different scholarship programs have varying

requirements, deadlines, and application formats, making navigation complex for students [8]. The system is expected to solve these problems by providing a more efficient way to find and get notified about scholarship availability, which means an easier process for the students.

## **Objective of the Project**

This project employs a systematic software development approach to create an automated scholarship search application. The main objective are structured as follows:

1. To identify current challenges in scholarship search in terms of efficiency, accuracy, and centralization.
2. To develop a user-friendly and efficient scholarship platform.
3. To assess and validate the system in terms of functional sustainability, performance efficiency, reliability, security and maintainability.

## **Scope and Limitation of the Project**

This study focuses on the design, development, and implementation of the TulongAral+ platform, which aims to provide students with easier access to scholarship opportunities. The platform's core features include user registration, scholarship search filters, application tracker, notifications, scholarship calendar, community forum, and an AI verification tool that validates the authenticity of scholarships added by the users. Its intended users are students from senior high school, college, and university levels, as well as scholarship sponsors.

The scope of the study is limited to students within Ilocos Norte, Ilocos Sur, Cagayan, and Manila. Language support is restricted to Tagalog and English, which may limit accessibility for students who are more comfortable with other dialects. Furthermore, the platform does not cover processes that require physical or hardcopy submission and in-person interviews, as it is designed for online application functions. The system is intended exclusively for senior high school, college, and university students, limiting scholarship coverage to these levels and excluding other forms of financial aid. Lastly, the effect of the platform relies on a stable connection, thus, students in areas with weak or unreliable connections may encounter challenges.

## **Significance**

The results and findings of the study are beneficial to:

**For Students.** The application helps them find and apply for scholarships more easily, showing the benefits and possible problems of using TulongAral+.

**For Scholarship Providers.** The application helps them reach more students and manage scholarship information more accurately and efficiently.

**For Teachers.** The application can help them support students better by using new tools that make finding scholarships simpler.

**For Parents.** The application lets them know about scholarship options and how they can help their children get financial support.

**For Researchers.** This study can be used as a guide for future studies or projects about helping students find scholarships.

## **Definition of Terms**

**Administrators** refers to a person managing and maintaining the platform, including user account management, verification of scholarship postings, and general system oversight.

**AI Verification Tool** refers to a system that validates the authenticity and credibility of scholarship information submitted to the platform.

**Application Tracker** refers to a feature that enables users to monitor the progress and status of their scholarship applications.

**Automation** refers to the process by which scholarship-related tasks such as searching, tracking, and notifications are performed by the system without manual intervention.

**Community Forum** refers to a platform the is interactive in which the users can discuss scholarship-related topics, share experiences, and support each other.

**Language Support (Tagalog and English)** refers to the interfaces and content in both Tagalog and English to accommodate diverse users.

**Notification System** refers to automated alerts and reminders sent to users about application deadlines, new scholarship posts, and status changes.

**Online Application Functions** refers to the process performed through the platform that allow students to apply for scholarships digitally without physical paperwork.

**Professors** refers to instructors or faculty members involved in supporting students, recommending or guiding them in scholarship applications.

**Scholarship Calendar** refers to a systematic schedule that organizes and display important dates related to scholarship opportunities.

**Scholarship Search Filters** refers to a tool that enable users to tailor and narrow down scholarship.

**Sponsors** refer to organization, institutions, or agencies that provide scholarships and utilize the platform to advertise and administer their scholarship programs.

**Students** refers to an individual enrolled in senior high school, college or universities who engage with the platform to find and submit applications for scholarship opportunities.

**User Registration** refers to the process through which students, sponsors, or other users create an authenticated account to access the system's services.

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