



GOLDEN EAGLE ASSIST

Making Campus Resources Just a Chat Away !

CIS 5850: Communication & Info Services - Dr. Ivan Pantaleon

Presented by:

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Our Agenda

- ✓ Introduction
- ✓ Problem Statement
- ✓ Objectives & Benefits
- ✓ Project Scope
- ✓ Mockups Overview
- ✓ Communication of Golden Eagle – Backend
- ✓ Communication of Golden Eagle – Frontend
- ✓ Meet Eagle Assist
- ✓ Key Takeaways, Conclusions, & Future Scope
- ✓ Q&A

Introduction

Golden Eagle Assist is a virtual assistant chatbot designed to improve student engagement and provide easy access to campus resources.

It offers real-time, interactive support for students. Available on both desktop and mobile platforms, it ensures students can quickly access accurate information and stay connected with campus resources.

Objectives

The **Golden Eagle Assist** chatbot supports Cal State LA's mission of fostering student success, engagement, and inclusivity by leveraging cutting-edge AI technology to deliver accessible, efficient, and personalized support.



Enhance Engagement

Foster meaningful interactions to keep students connected with campus activities and resources.



Improve Accessibility

Provide 24/7 access to accurate information about programs, services, and facilities.

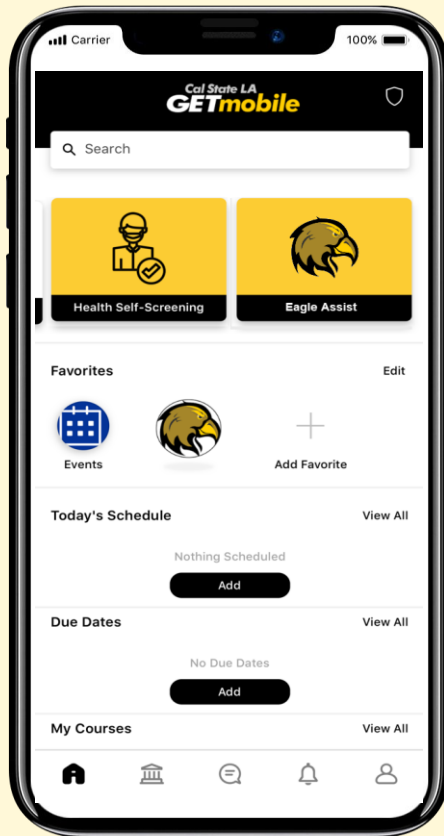


Streamline Assistance

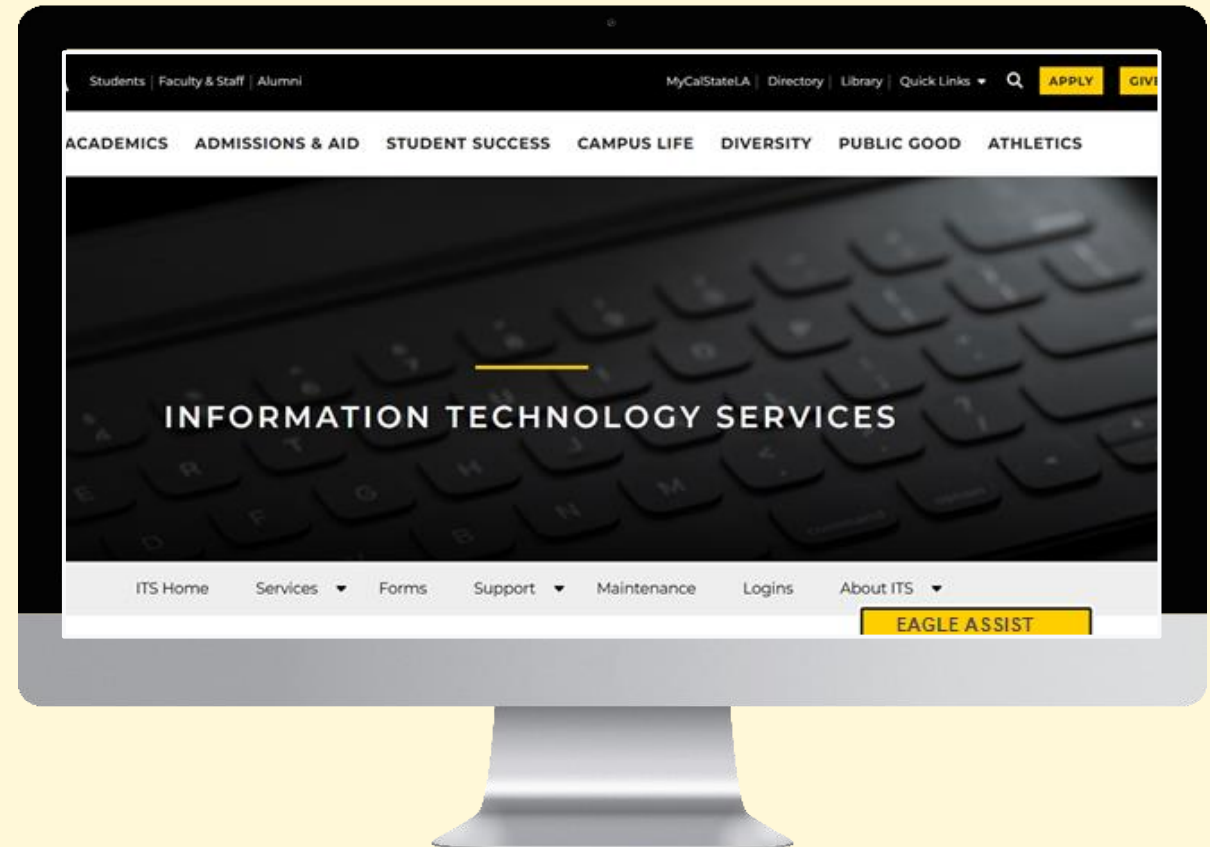
Deliver quick, reliable responses to minimize wait times and improve user satisfaction.

EAGLE ASSIST

Device Mockups: Website & Get Mobile App



Mobile Interface



Web Interface

Problem Statement

Bridging the Gap: Addressing Accessibility, Engagement, and Operational Challenges at Cal State LA.



Accessibility Challenges

Students and visitors often struggle to find relevant information on the university's website, leading to frustration and reduced satisfaction.



Staff Overload

Administrative teams are burdened with repetitive inquiries, reducing their capacity to address complex issues.

Engagement Gap



Limited tools for real-time support and engagement result in missed opportunities to connect with students and prospective applicants.

Benefits



Enhanced Student Experience

Deliver instant, effortless answers to questions about campus details, admissions, and library services.



Operational Efficiency

Cut through the clutter, reducing the workload on administrative staff, allowing them to focus on higher-value tasks.



24/7 Accessibility

Ensure consistent availability of support, even outside office hours.

Project Scope

Core Features

- Instant responses to FAQs on admissions, academic programs, campus events, and administrative processes.
- 24/7 accessibility to ensure continuous support for students, faculty, and prospective visitors.
- Seamless navigation assistance for university resources like library hours, admission details, and campus services.

Integration

- Embedded chatbot interface on the Cal State LA website.
- Real-time data fetching from the university's website and databases for accurate information.
- REST API integration for enhanced features and resource management.

Technology

- AI-powered chatbot with natural language processing (NLP) for personalized interactions.
- Scalability to handle high traffic during peak periods like admissions or enrollment.

Deliverables

- A fully functional chatbot interface embedded on the website.
- Comprehensive user guides and documentation for staff and administrators.
- Performance analytics to track engagement and feedback for future improvements.

User Base

- Current and prospective students, faculty, staff, and visitors seeking information about Cal State LA as well as technical administrators responsible for maintaining the chatbot.

Communication of Golden Eagle Assist

Golden Eagle Assist is a chatbot application designed to provide seamless assistance for university-related queries. The architecture is divided into two main components: **frontend** and **backend**, ensuring a robust and user-friendly interface.

Technologies Used:

- **Tkinter:** For Graphical User Interface (GUI) development.
- **Request library:** To facilitate API Integration
- **Webbrowser Library:** Enables clickable URLs in the interface.
- **NgrokTunnel:** Securely exposes local servers to the internet, enabling seamless API integrations, webhook testing, and live demonstrations.
- **Rasa Framework:** Handles Natural Language Understanding (NLU) and dialogue management.
- **Python:** Powers both frontend and backend operations.
- **REST API:** Facilitates communication between frontend and backend systems.
- **Machine Learning:** For training/testing the model to learn and respond to keywords.

Backend: Powered by Rasa Framework

MODEL TRAINING

➤ Natural Language Understanding (NLU)

- User intents are identified using the **nlu.yml** file.
- Predefined intents include greet, **ask_courses**, **ask_fees**, and many more.

➤ Dialogue Management

- The **stories.yml** and **rules.yml** files define how the bot responds to user inputs.
- Example: A greet intent triggers a response defined in the **utter_greet** action.

➤ Domain Configuration

- The **domain.yml** file maps intents to actions and responses.
- Handles dynamic content for queries about courses, admissions, scholarships, and facilities.

Backend Workflow

- **Input Processing**
 - User messages are sent from the frontend to the backend via REST API calls.
- **Intent Recognition**
 - The Rasa NLU model identifies the user's intent and extracts relevant entities.
- **Response Generation**
 - Based on the intent, the bot triggers appropriate actions and retrieves the necessary information.
- **Message Delivery**
 - The bot sends a natural language response back to the front end for display.

Front-end Communication of Golden Eagle Assist

Frontend Technical Details

- Built using Python's **Tkinter** library to provide an interactive graphical user interface (GUI).
- We also have imported a few other Python libraries like **requests** and **web browser**.

Key Features:

- ✓ **A clean and responsive UI:** The chatbox is designed to look clean and intuitive, ensuring a smooth user experience.
- ✓ **Dynamic message bubbles:** The messages are styled to distinguish between user inputs and bot responses, making interactions visually clear.
- ✓ **Auto-scroll functionality:** This ensures that new messages are always displayed seamlessly, improving the usability of the chat interface.
- ✓ **URL handling:** If a bot response contains a link, users can click on it to open it in their browser.
- ✓ **Error handling:** The system provides robust error handling for cases like invalid inputs or communication issues with the backend.

How It Works

- User inputs are sent to the backend via API calls.
- Responses from the backend are displayed dynamically in the chat window.

Ready to meet Eagle Assist?

We're excited to showcase **Eagle Assist**, Cal State LA's virtual assistant chatbot, designed to revolutionize how students and visitors access resources.


Let's dive in and see how this innovative solution simplifies support, boosts accessibility, and enhances the user experience. Click on the button below for the Demo.

Now, let's try it out!



Golden Eagle Assist Demo

Key Snapshots of Golden Eagle Assist

**GOLDEN EAGLE ASSIST**

Hey

Golden Eagle Assist
Hey! How can I assist you?

How are you?


Golden Eagle Assist
I am a bot, here to assist you with college enquiries.

okay

Golden Eagle Assist
Goodbye! Feel free to reach out again.

→

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**GOLDEN EAGLE ASSIST**

Could you please help me with library hours?

Golden Eagle Assist
The library hours for this week are as follows:
Library North Building:
- Monday to Thursday: 8 AM - 10 PM
- Friday: 8 AM - 5 PM
- Saturday: 10 AM - 6 PM
- Sunday: Closed


Golden Eagle Assist
Palmer Wing Building:
- Monday to Thursday: 8 AM - 7 PM
- Friday: 8 AM - 5 PM
- Saturday and Sunday: Closed

Golden Eagle Assist
For more details, visit:
<https://www.calstatela.edu/library>

Thanks

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**GOLDEN EAGLE ASSIST**

Can you please provide admission details?

Golden Eagle Assist
You can apply online through our website or visit the admissions office for guidance.

Golden Eagle Assist
Admission Deadlines:


Golden Eagle Assist
Undergraduate Programs:
- Fall 2025: Opens October 1, 2024
- Summer 2025: Closed
- Spring 2025: Closed
- Fall 2024: Closed

Golden Eagle Assist
Graduate/Post-Baccalaureate Programs:
- Fall 2025: Opens October 1, 2024
- Summer 2025: Opens February 1, 2025
- Spring 2025: Opens August 1, 2024
- Fall 2024: Closed

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Key Snapshots of Golden Eagle Assist

**GOLDEN EAGLE ASSIST**

Can you share the parking website?

Golden Eagle Assist
For parking information, visit:
<https://www.calstatela.edu/parking>

Can you help me with campus housing details?

Golden Eagle Assist
For on-campus housing, visit Cal State LA's housing portal: <https://www.calstatela.edu/housing>


Golden Eagle Assist
To get Frequently Asked Questions related to housing click on the link below:
<https://www.calstatela.edu/housing/how-apply-faqs>

Thanks

Golden Eagle Assist
Goodbye! Feel free to reach out again.

→

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**GOLDEN EAGLE ASSIST**

Could you please help me with graduate programs?

Golden Eagle Assist
Information on graduate programs can be found here:
<https://www.calstatela.edu/nss/graduate-programs>

great


Golden Eagle Assist
I'm glad to hear that! Keep it up!

where can I get the details on fee structure for programs?

Golden Eagle Assist
The fee structure depends on the course. Please visit the fees section on our website for detailed information:
<https://www.calstatela.edu/finance-onestop/student-fees>

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**GOLDEN EAGLE ASSIST**

Golden Eagle Assist
Hey! How can I assist you?

Can you please send the academic calendar for Cal State La?

Golden Eagle Assist
Check the academic calendar here:
<https://www.calstatela.edu/academicresources/academic-calendar>

Alright. I also want to join a student club. Could you share some information about it?

Golden Eagle Assist
Find student organizations and clubs here:
<https://www.calstatela.edu/business/student-clubs>

Thanks

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Golden Eagle Assist: Transforming Campus Engagement

- **Key Takeaways:**

- **Purpose:** Eagle Assist bridges the gap between students and resources with 24/7 AI-driven support.
- **Impact:** Improves accessibility, engagement, and operational efficiency for Cal State LA.
- **Innovation:** Combines advanced AI with user-friendly design, setting a standard for campus support systems.

- **Concluding Thoughts:**

Golden Eagle Assist is not just a chatbot; it's a step forward in enhancing how students, staff, and visitors connect with Cal State LA. Together, let's embrace innovation to empower student success.

Future Scope of Our Project

➤ **Integration with Advanced Analytics**

- Incorporate machine learning models or advanced statistical techniques to derive deeper insights and predictive capabilities.

➤ **Automation and Optimization**

- Automate repetitive tasks within the workflow to improve efficiency and reduce manual intervention.

➤ **Enhanced User Interface**

- Develop an intuitive, user-friendly interface to improve accessibility and user interaction.

Thank You!

Does anyone have any questions?

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