From Students…
…to Professionals

Project Plan Presentation
Voice Transcription API

The Capstone Experience

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Project Sponsor Overview

• International logistics and supply chain solutions
• Focused on freight transportation logistics
• Connects clients and carriers
• Non-asset based
Project Functional Specifications

• Call centers are experiencing high volume of logistics questions
• Reduce workload and increase operational efficiency
• Interactive voice assistant with multilingual support
• View and modify personal and logistics information
• Admin interface
Project Design Specifications

- Display recent call logs
- Manage outgoing calls
- View call transcripts
- View call summary and metrics
Screen Mockup: Call logs

<table>
<thead>
<tr>
<th>Call No</th>
<th>Date</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>123123</td>
<td>01/22/2024</td>
<td>John Doe</td>
</tr>
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Screen Mockup: Outgoing calls
Screen Mockup: Call history

Full History of Call

Hello, I am the RPM chatbot. How can I help you today?

I can help you with that. Could you provide your Tracking number?

Awesome, thank you. The information is ...

Hello, I want to look at the information of my carrier.

Yes, the tracking number is 12431212.
Screen Mockup: Call summary

Summary of the Call

- Call No: 123123
- Date: 01/24/2024
- Contact: John Doe
- Duration: 68 seconds
- Reason: Email Update
- Type of Call: Incoming

Description

Carrier updated their email from johndoe@hotmail.com to doejohn@hotmail.com.
Project Technical Specifications

• Flask
• Twilio
• OpenAI
• Azure AI
• Azure Table Storage
• Turvo
• React
Project System Architecture

Front-End
- React

Back-End
- Twilio
- TURVO
- OpenAI
- Flask

Database
- Azure Tables
- RPM

Consumers
Project System Components

• Hardware Platforms
  ▪ Phone

• Software Platforms / Technologies
  ▪ Flask
  ▪ Turvo
  ▪ OpenAI
  ▪ Azure resources
  ▪ React
Project Risks

• Scalability and cost management
  ▪ Running multiple calls at once while keeping costs down
  ▪ Design backend to maximize token efficiency
• Voice command interpretation and execution
  ▪ Understanding the needs of the caller and executing commands accordingly
  ▪ Leverage OpenAI functions to take action accordingly
• Voice recognition in noisy environments
  ▪ Identifying the caller even in noisy environments
  ▪ Utilize Azure AI to recognize caller’s voice effectively
• Data security and authorization
  ▪ Avoiding leaking confidential information to unauthorized callers
  ▪ Incorporate an efficient structure of OpenAI functions
Questions?