

Transforming Engagement Through Artificial Intelligence

Stephen D. Drew — *Chief AI Officer*

Roger Lee — *Senior Vice President, AI Success & Sustainability*

So Hye Park — *Applied AI Scientist*

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Introduction



Stephen Drew — Chief AI Officer and Head of Product Management, RNL

20 years of experience leading the development and support of machine learning and conversational AI systems. Former VP of AI @ Five9, VP of AI @ Uniphore, Global Head of Contact Center Technology @ Cigna. Doctorate, Applied AI, DePaul.



Roger Lee — SVP of AI Success and Sustainability, RNL

20 years of extensive expertise spanning finance, operations, service management, and quality assurance. Roger held numerous top-level roles in contact centers and technology solution firms including Deluxe Corporation, Thomson Reuters, HP, OpenText, Gridspace, and Uniphore.



So Hye Park — Applied AI Scientist, RNL

5 years of experience in data science, data analytics, and linguistics research. MA in Applied Linguistics from Ewha University, MS in Quantitative Methodology from University of Maryland, Ph.D. candidate in Applied Linguistics at University of Maryland.

Agenda

1. Introductions
2. What are large language models and conversational AI?
3. Responsible AI: Cutting through the noise
4. Conversational AI for enrollment, fundraising, and analytics
5. What is AI @ RNL?
6. Q&A, next steps

**What are large language models
and conversational AI?**

Explaining large language models (LLM)



- **An LLM is a neural network trained on billions of unstructured documents.**
This allows the LLM to predict the next words in sequence following an input string.
- **ChatGPT (GPT-4) from OpenAI is the best-known and most widely used LLM today.**
However, it is costly, has latency issues, and does not guarantee privacy.
- **Open-source models from Meta, Mistral, and others are rapidly catching up to OpenAI.**
Most experts expect LLama70b v3 from Meta (expected in late Q3) to achieve GPT-4 quality.

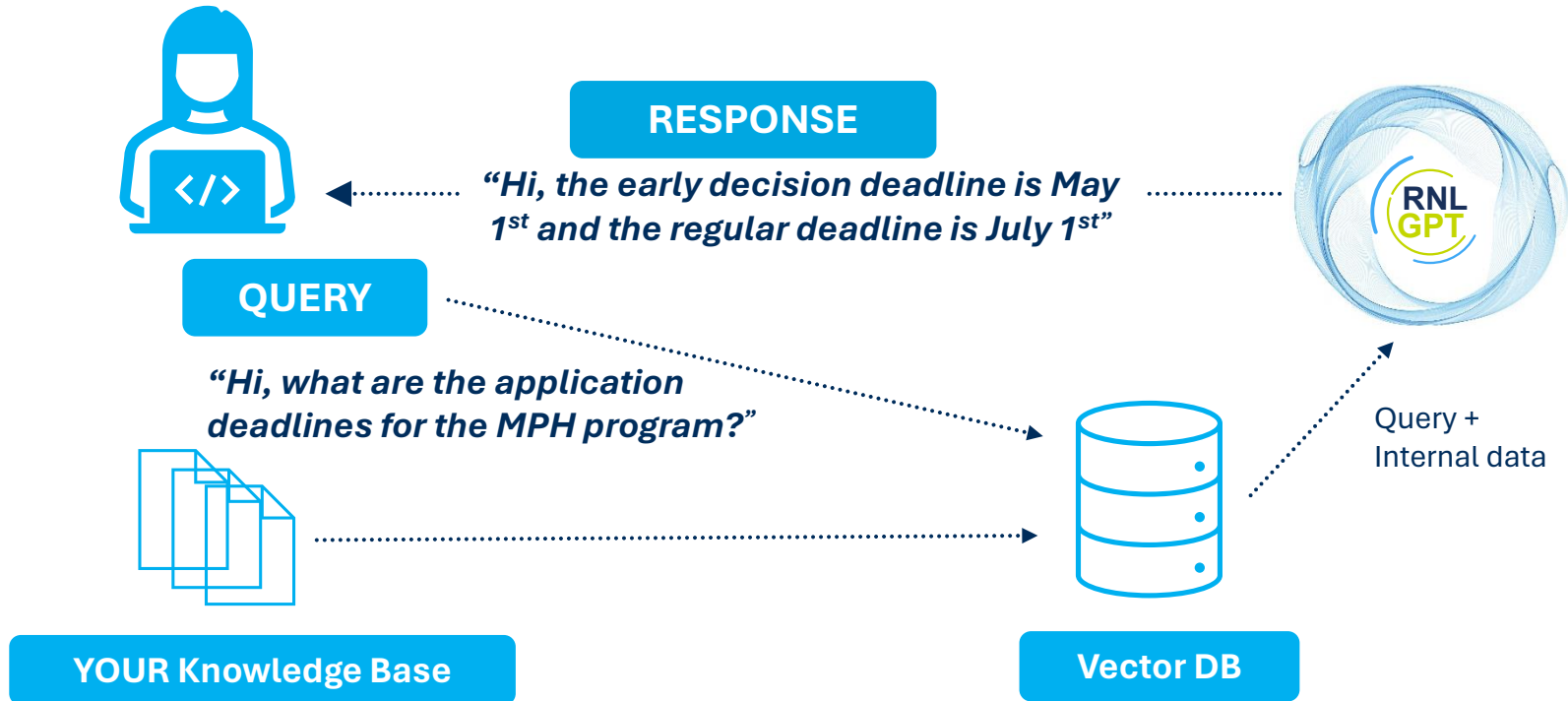
Explaining retrieval augmented generation (RAG)

RAG combines the conversational abilities of large language models with the factual accuracy of training documents. This allows us to **deploy conversational solutions very quickly** because we no longer need to program paths for everything someone says (or types).

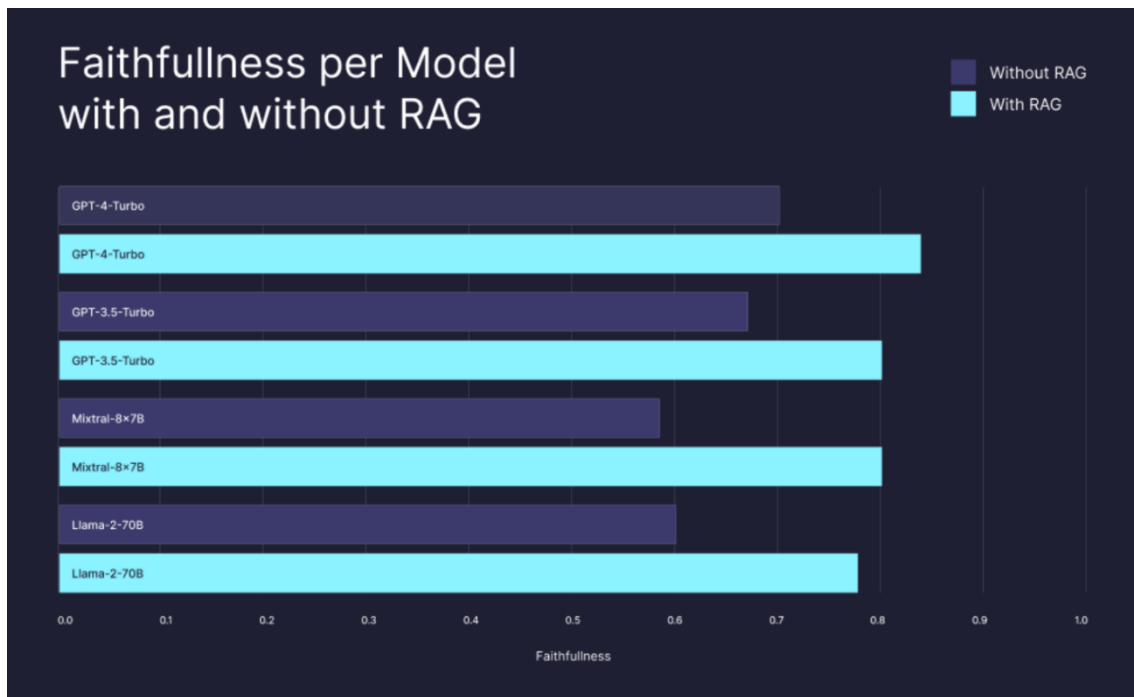


Ultimately, RNL's approach *allows us to achieve near ChatGPT-level quality with lower cost, better performance, and secure open-source models.*

Explaining RAG (continued)



Model performance with RAG



A study from Pinecone showed that using Mixtral-8x7b with RAG allowed it to achieve the same level of quality as GPT-3.5-Turbo and nearly the same quality as GPT-4-Turbo.

RNL-GPT uses the Mixtral-8x7b model with RAG to power our generative AI solutions.

**Responsible AI:
Cutting through the noise**

Balancing innovation and responsibility

Responsible AI

Formalize the AI use case intake process with defined requirements, including managing compliance and risks.

Recognition of the unpredictability and difficulty in explaining outcomes from neural network-based models such as large language models and computer vision systems.

AI governance and risk management framework, tooling, and transparency reporting for RNL and our clients.



Innovation

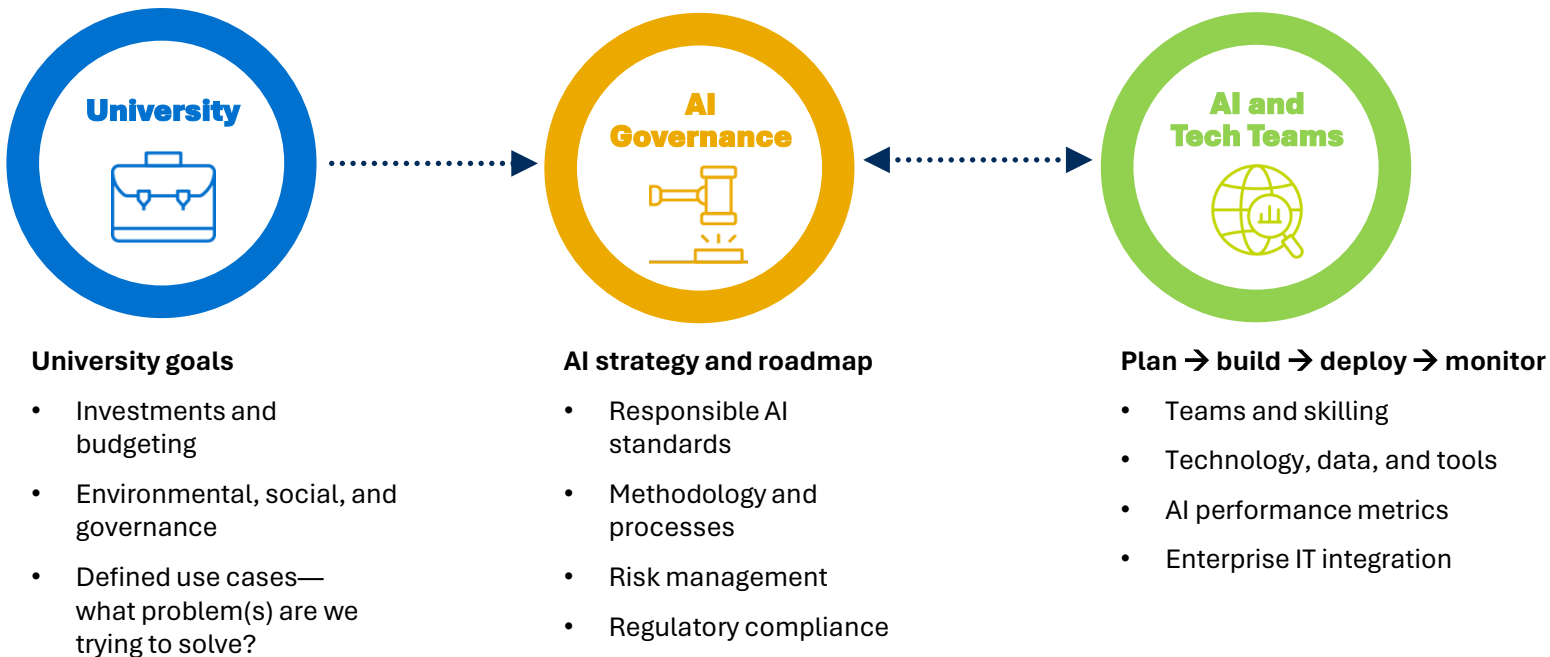
Exploration of generative AI models' integration with existing structured and unstructured data sources.

Leveraging modern AI models and knowledge systems to drive intelligent conversations, distill information quickly, and uncover valuable insights from data.

Controlled releases of innovative new products and services that build on the consulting expertise and predictive analytics capabilities of RNL.

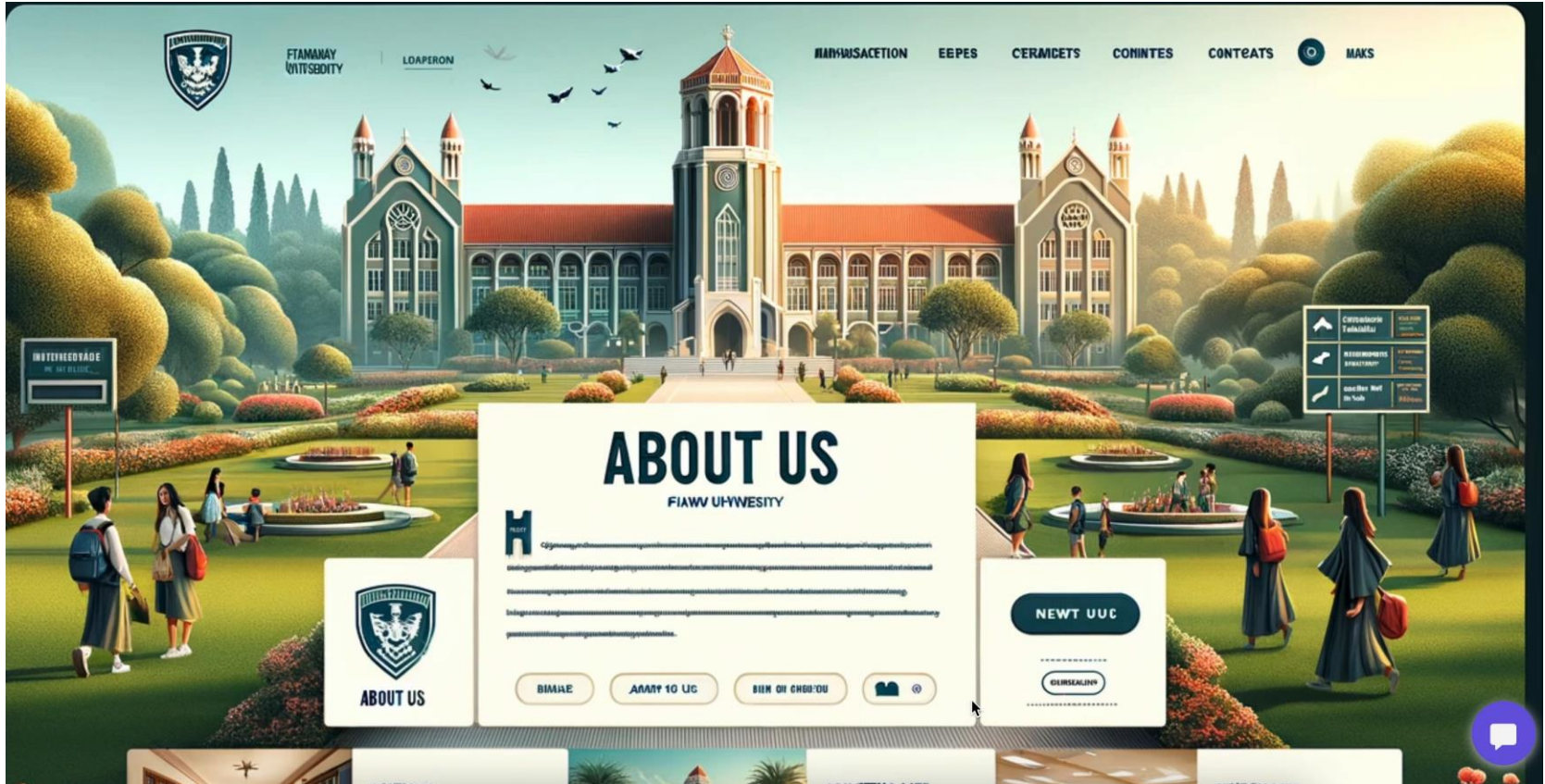
Enterprise AI Governance Framework

Enterprise AI governance sits between business goals and the enterprise teams implementing them



Conversational AI for enrollment, fundraising, and analytics

Conversational AI for enrollment



Applicant evaluation

The interface displays a network of document nodes with scores. The nodes are:

- 95 ms_al_rubric.pdf
- 63 ms_al_rubric.pdf
- 49 ms_al_rubric.pdf
- 47 ms_al_rubric.pdf
- 47 ms_al_rubric.pdf
- 46 ms_al_rubric.pdf
- 45 ms_al_rubric.pdf
- 43 ms_al_rubric.pdf

At the top, there are buttons for '+ Add Documents', 'TakeoffEmbed...', 'WindowRetrie...', and 'TakeoffGenera...'. A search bar at the bottom contains the text 'What is LLMops?'.

TakeOff Chat 1 category selected

5. Leadership and Teamwork (10 Points):

- President, Computer Science Club (University of Tech)
- Project Lead, Smart Traffic Management System Capstone Project
- Score: 8-10 Points

Total Score: 96-100 Points

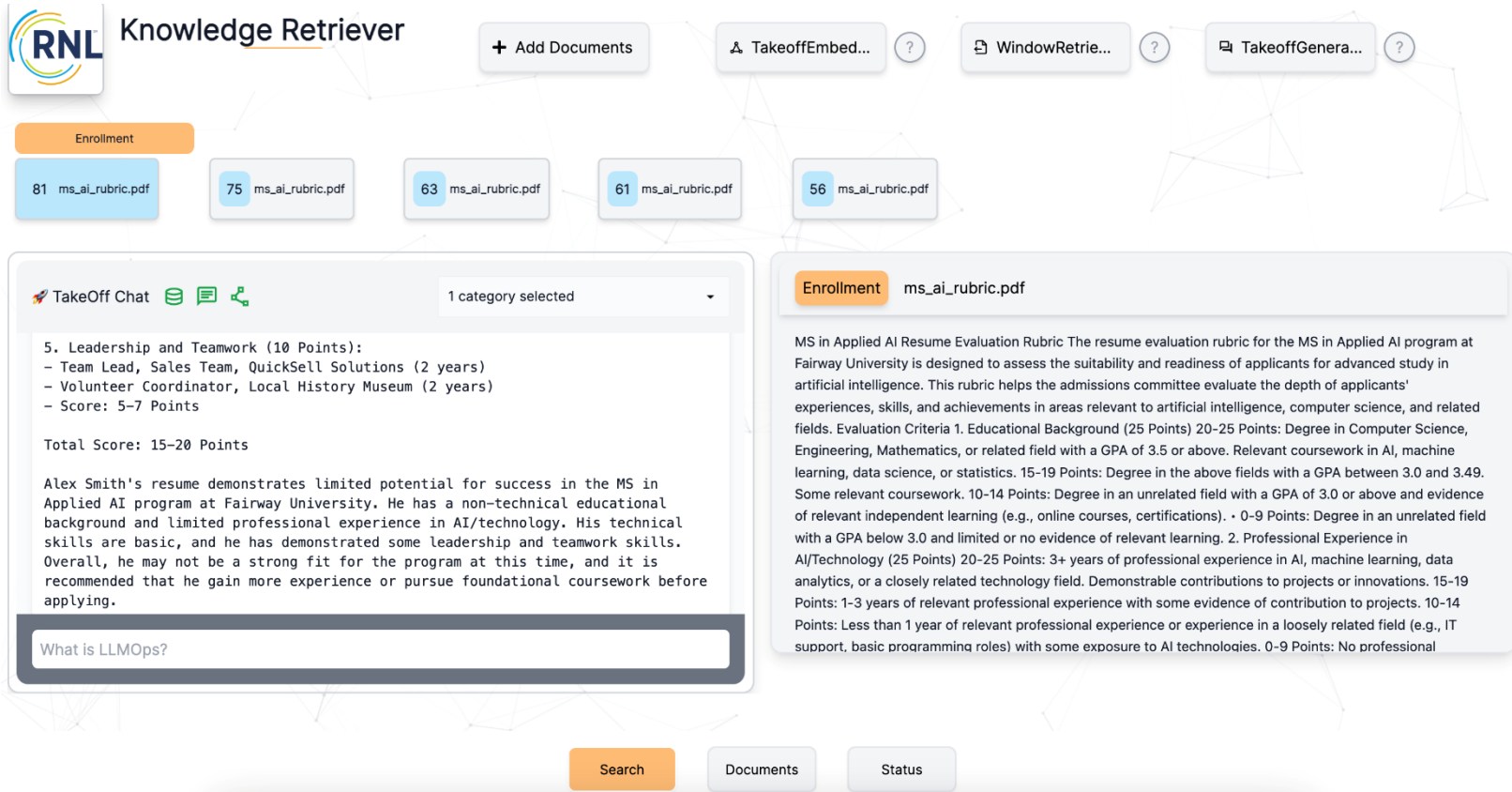
John Doe's resume demonstrates strong potential for success in the MS in Applied AI program at Fairway University. He has a solid educational background, relevant professional experience, and notable project involvement. His technical skills are proficient, and he has demonstrated leadership and teamwork skills. Overall, he is an excellent fit for the program.

Enrollment ms_ai_rubric.pdf

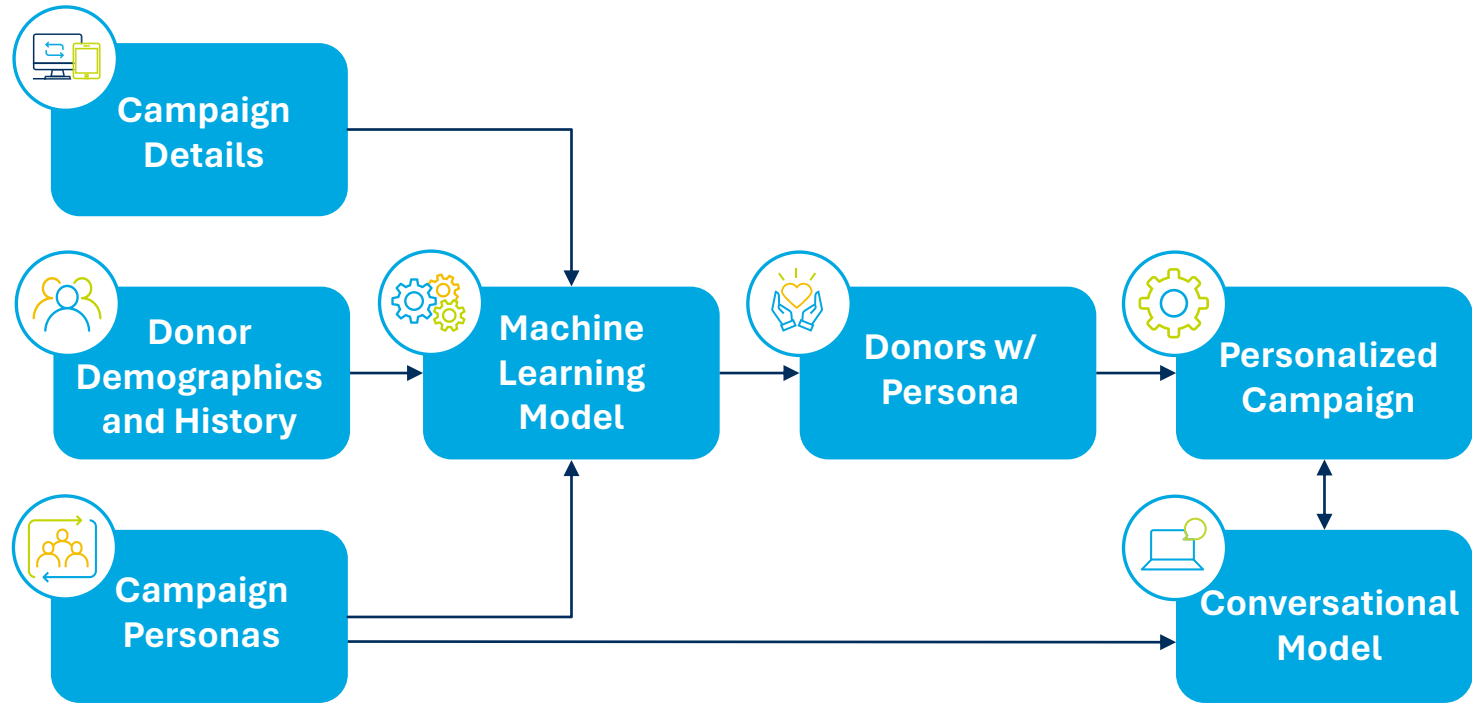
MS in Applied AI Resume Evaluation Rubric The resume evaluation rubric for the MS in Applied AI program at Fairway University is designed to assess the suitability and readiness of applicants for advanced study in artificial intelligence. This rubric helps the admissions committee evaluate the depth of applicants' experiences, skills, and achievements in areas relevant to artificial intelligence, computer science, and related fields. Evaluation Criteria 1. Educational Background (25 Points) 20-25 Points: Degree in Computer Science, Engineering, Mathematics, or related field with a GPA of 3.5 or above. Relevant coursework in AI, machine learning, data science, or statistics. 15-19 Points: Degree in the above fields with a GPA between 3.0 and 3.49. Some relevant coursework. 10-14 Points: Degree in an unrelated field with a GPA of 3.0 or above and evidence of relevant independent learning (e.g., online courses, certifications). 0-9 Points: Degree in an unrelated field with a GPA below 3.0 and limited or no evidence of relevant learning. 2. Professional Experience in AI/Technology (25 Points) 20-25 Points: 3+ years of professional experience in AI, machine learning, data analytics, or a closely related technology field. Demonstrable contributions to projects or innovations. 15-19 Points: 1-3 years of relevant professional experience with some evidence of contribution to projects. 10-14 Points: Less than 1 year of relevant

Search Documents Status

Applicant evaluation



Conversational AI for fundraising



Conversational AI for fundraising

The interface features a top navigation bar with the RNL logo and the title "Knowledge Retriever". Below this are several control buttons: "+ Add Documents", "TakeoffEmbed...", "WindowRetrie...", and "TakeoffGenera...". A central row of document cards displays search results, each with a count and a filename (e.g., "75 Document4.pdf").

On the left, a "Fundraising" category is selected. Below this is a "TakeOff Chat" window with a dropdown menu showing "1 category selected". The chat area contains a prompt: "create an SMS to stephen drew regarding the 2024 giving day campaign. stephen fits Donor Persona 3: 'The Cultural Patron' so target the message according to that persona." A "Copy" button is visible below the prompt. The chat response is: "Stephen, as a lover of arts and culture, we believe you'll be excited about our 'Art and Culture Pavilion' initiative in the 2024 Giving Day campaign. This project aims to create spaces dedicated to the arts, offering galleries, performance spaces, and workshops. Join us in nurturing creative talents and supporting a vibrant cultural hub at Prestige University. Visit our website to contribute today! #FuturesUnleashed #PrestigeGivingDay2024". A search input field at the bottom of the chat contains the text "What is LLMops?".

On the right, a document preview for "Fundraising Document4.pdf" is shown. The preview text reads: "Campaign Name: 'Futures Unleashed: The 2024 Giving Day' Campaign Overview: 'Futures Unleashed: The 2024 Giving Day' is an extraordinary 24-hour fundraising initiative organized by Prestige University, aimed at uniting alumni, students, faculty, and friends worldwide to support the future of education, health, and innovation. Our goal is to raise \$5 million to fund scholarships, construct a state-of-the-art gymnasium, and launch several groundbreaking projects that promise to redefine the Prestige University experience. Campaign Objectives: Empowering Dreams: Scholarships for Tomorrow's Leaders - A substantial portion of the funds raised will be allocated to scholarships, focusing on underrepresented students and those with exceptional talents or in financial need. Our aim is to unlock the doors to higher education for 500 deserving students, offering them the chance to pursue their dreams without financial barriers. Building Wellness: A State-of-the-Art Gymnasium - Recognizing the critical role of physical health in academic and personal success, funds will also go towards constructing a new gym. This facility will not only serve our athletic teams but also provide all students and faculty with access to cutting-edge fitness equipment, indoor sports venues, and wellness programs. Innovation Projects: The Green Campus Initiative: A project aimed at transforming our campus into a sustainable and environmentally friendly space, with solar panels, green roofs, and a campus-wide recycling program. The Tech Hub: A new building dedicated to fostering innovation and entrepreneurship, equipped with the latest in digital fabrication tools, VR/AR labs, and collaborative workspaces for student startups. Art and Culture Pavilion: An area devoted to the arts, offering

At the bottom of the interface are three buttons: "Search", "Documents", and "Status".

Conversational AI for fundraising

RNL Knowledge Retriever

+ Add Documents TakeoffEmbed... WindowRetrie... TakeoffGenera...

Fundraising

75 Document4.pdf 62 Document6.pdf 51 Document7.pdf 50 Document4.pdf 48 Document5.pdf 47 Document4.pdf 47 Document5.pdf 46 Document7.pdf

TakeOff Chat 1 category selected

Copy

Subject: Join Us in Supporting the Futures Unleashed: The 2024 Giving Day Campaign

Dear Roger,

I hope this email finds you well. I wanted to reach out and share some exciting news about an upcoming fundraising initiative at Prestige University, "Futures Unleashed: The 2024 Giving Day." As someone who shares a passion for health and wellness, I believe this campaign aligns well with your interests and values.

The 2024 Giving Day aims to raise \$5 million to support various projects that focus on education, health, and innovation. One of the key objectives is to construct a state-of-the-art gymnasium, which will not only serve our athletic teams but also

What is LLMops?

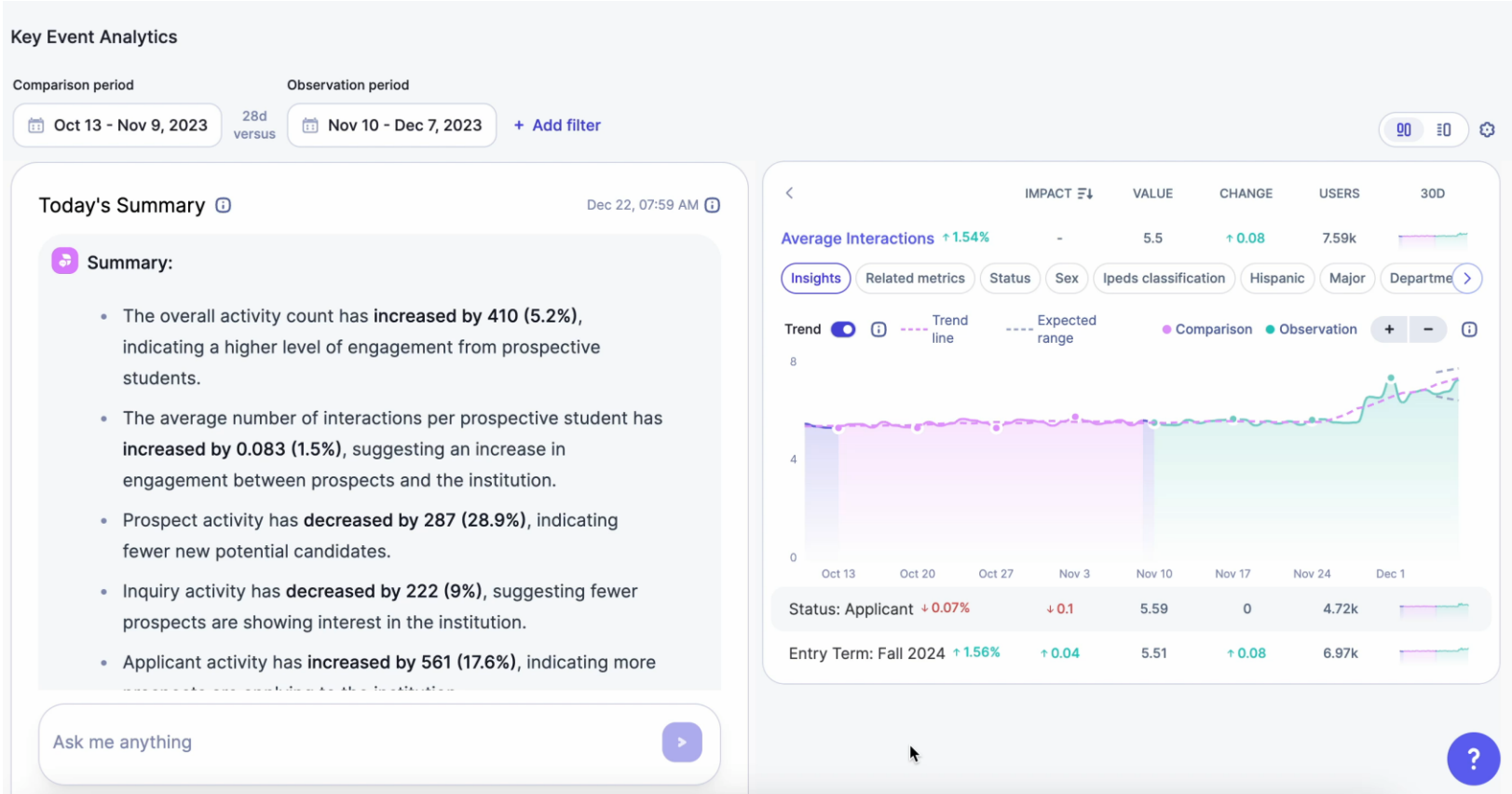
Fundraising Document4.pdf

general, performance spaces, and workshops designed to nurture creative talents across the university community. Global Learning Fund: Supporting international study opportunities, language learning programs, and cross-cultural exchanges to prepare students for a globalized world. How to Contribute: Online Donations: Visit our dedicated campaign website, where you can donate quickly and securely. Choose to direct your gift to a specific cause within the campaign or contribute to the general fund. Matching Gifts: Double your impact! Many employers offer matching gift programs that can double or even triple your donation. Volunteer: Join our global network of volunteers to help spread the word about Giving Day. Share our mission on social media, host fundraising events, or become a campaign ambassador in your community. Legacy Gifts: Consider making a lasting impact by including Prestige University in your estate planning. Legacy gifts can take many forms, such as bequests, retirement assets, or life insurance policies. Why Give?

Your contribution to "Futures Unleashed: The 2024 Giving Day" is an investment in the future. It's an opportunity to give back and help shape a world where education is accessible, innovation is celebrated, and health and wellness are prioritized. Every gift, no matter the size, makes a difference in the lives of our students and the broader community. Join us in making history. Together, we can unleash the future. #FuturesUnleashed #PrestigeGivingDay2024

Search Documents Status

Conversational AI for analytics



What is AI @ RNL?

AI @ RNL for 2024

We will release **RNL-GPT**, our private model trained with RNL consulting expertise and augmented with client-provided data to enable multiple conversational AI solutions. RNL-GPT guarantees **complete privacy and security of client-provided data**.

We will leverage RNL-GPT to produce:



RNL Digital Assistant

Multi-modal Conversational Assistants for enrollment, student success, and fundraising.



RNL Knowledge Retriever

A private and secure ChatGPT-like experience for RNL clients and generative AI features for RNL SaaS platforms.



RNL Insights Hub

A conversational interface using client data (CRM, SIS, etc.) and RNL-generated data to produce strategic insights.

Use cases for AI

Digital Assistant

- Program Q&A
- Application assistance
- FAFSA guidance
- Financial guidance (student loans, making informed decisions)
- Alumni support
- Personalized outbound contacts for recruiting, follow-ups, and fundraising (calls, SMS)

Knowledge Retriever

- Academic support & advising
- Test preparation
- Writing assistants
- Essay evaluation
- Content creation
- Brainstorming
- Email responses
- SEO keyword blueprints

Insights Hub

- Uncover insights from your CRM data faster using natural language
- Provide senior leaders with access to intuitive views and summaries of key activities
- Benchmark against similar universities
- Generate insights from RNL GPT



Questions & Answers



Join our webinar on intelligent web engagement:

Increasing Conversion and Enrollment Through Intelligent Web Engagement

March 14, 2024 | 2 p.m. ET

Transform your website into a highly engaging experience for prospective students by making each web visit more personalized and meaningful for them.

Presenters:

Andrea Gilbert — *Chief Solutions Officer, RNL*

Austen Kelso — *Vice President for Enrollment Solutions, RNL*

Dallin Palmer — *Co-Founder, President, and COO, Halda*

RNL.com/WebEngagement

Thank you for your time



Stephen Drew

Chief AI Officer and Head of
Product Management, RNL



Roger Lee

Senior Vice President of AI Success
and Sustainability, RNL



So Hye Park

Applied AI Scientist,
RNL

