

PANDA AI User Acceptance Testing (UAT) Documentation

The purpose of this document is to showcase the functionality we built for PANDA AI and show some of the use cases when we run the application.

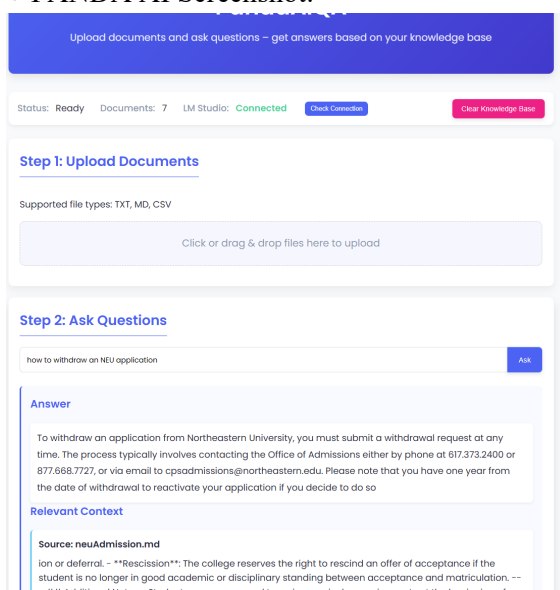
User Case: AI-Powered Admission Advising (md input, Q&A output)

As a school emphasizing experience learning and having a large international student community, Northeastern University has a huge group of prospective students that are working full time or are not in the U.S. when they apply for Northeastern University. Because of this nature, this group of prospective students may find it difficult to schedule an admission advising meeting with one of NEU's admission advisors due to busy schedules and time-zone differences.

With PANDA AI, northeastern university can load admission policy documents into the local AI tool and the admission advising team can utilize this tool when they advise prospective students. This tool empowers NEU to expand its admission advising team to include less experienced admission advisors and school ambassadors in non-U.S. countries to answer student questions.

Scenario 1: Application Related Questions

- User Action: A prospective student asks, "How to withdraw an NEU application?"
- AI Workflow:
 1. Retrieve the related section from the local knowledge base .
 2. Generate a response: "To withdraw an application from Northeastern University, you must submit a withdrawal request at any time. The process typically involves contacting the Office of Admissions either by phone at 617.373.2400 or 877.668.7727, or via email to cpsadmissions@northeastern.edu. Please note that you have one year from the date of withdrawal to reactivate your application if you decide to do so."
- PANDA AI Screenshot:



User Case 2: AI-Powered Video Teaching Assistant (mp4 Video input, Q&A output)

As busy computer science master students, sometimes we want to watch some extra videos to learn more about some specific topics in CS. But we may not have the time to sit down and watch the whole videos or read the whole video transcript and we may forget some key knowledge of the video after we watch them as well.

With PANDA AI, we can feed the video we want to watch to the local AI tool and the video becomes part of the local knowledge base we built. We can directly ask PANDA AI to answer our question or give us a summary of the video.

Scenario 2: Questions about Key Concept in Educational Video

- User Action: We fed a TED talk video about Saturn's discovery to PANDA AI and asked "Tell me about organic compounds."

- AI Workflow:

1. Obtain information from the video and load them into the local knowledge base.
2. Retrieve the related information from the local knowledge base .
3. Generate a response: "Organic compounds are substances composed of carbon bonded with other elements, most commonly oxygen, hydrogen, and sometimes nitrogen, sulfur, etc. They form the basis of life as we know it, being essential for biological processes. In the context provided, the Cassini spacecraft has detected various organic molecules escaping from the South Pole region of the moon Saladus. These include propane (C_3H_8), benzene (C_6H_6), hydrogen cyanide (HCN), and formaldehyde (CH_2O). Such findings suggest potential prebiotic chemistry and possibly an environment favorable for life. "

- PANDA AI Screenshot:

PandaAIQA

Upload documents and ask questions – get answers based on your knowledge base

Default Role ▼

Status: Ready

Documents: 4

LM Studio: Connected

[Check Connection](#)

[Clear Knowledge Base](#)

Step 1: Upload Documents

Supported file types: TXT, MD, CSV

Click or drag & drop files here to upload

Step 2: Ask Questions

tell me about organic compounds

[Ask](#)

Answer

Organic compounds are substances composed of carbon bonded with other elements, most commonly oxygen, hydrogen, and sometimes nitrogen, sulfur, etc. They form the basis of life as we know it, being essential for biological processes. In the context provided, the Cassini spacecraft has detected various organic molecules escaping from the South Pole region of the moon Saladus. These include propane (C_3H_8), benzene (C_6H_6), hydrogen cyanide (HCN), and formaldehyde (CH_2O). Such findings suggest potential prebiotic chemistry and possibly an environment favorable for life

Relevant Context

Source: test1.mp4

simple organic compounds like carbon dioxide in methane. And at that time, two years ago, I mentioned that we were speculating that these jets might in fact be geysers and erupting from pockets or chambers of liquid water underneath the surface, but we weren't really sure. However, the implications of those results of a possible environment within this moon that could support prebiotic chemistry and perhaps life itself were so exciting that in the intervening two years, we have focused more on in Saladus. We have flown the Cassini spacecraft by this moon now several times, flying closer and deeper into these jets into the denser regions of these jets so that now we have come away with some very precise compositional measurements. And we have found that the organic compounds coming from this moon are in fact more complex and we previously reported while they're not amino acids, we're now finding things like propane and benzene, hydrogen cyanide and formaldehyde.

Relevance: 36.5%

Scenario 3: Summary of Educational Video local Knowledge Base (Mp4 video input, Summary of the Whole Video)

- User Action: We fed the same TED talk video about Saturn's discovery to PANDA AI and asked the PANDA AI to generate a comprehensive summary note for the video knowledge base.

- AI Workflow:

1. Obtain information from the video and load them into the local knowledge base.
2. Retrieve the related information from the local knowledge base .
3. Generate a response: "

Summary Note:

Overall Overview:

The Cassini spacecraft has discovered an anomalously warm and geologically active region at Saturn's small moon Saladus, particularly at its southern pole. This region emits jets composed of water ice crystals with organic compounds such as propane, benzene, hydrogen cyanide, and formaldehyde.

Main Content (Classified by Theme):

Geological Activity: The South Pole region exhibits Tigerstripe fractures and is surrounded by jets.

Chemical Composition: Jets emit complex organic compounds like propane, benzene, hydrogen cyanide, and formaldehyde.

Potential for Life-Sustaining Environment: The presence of liquid water in contact with rock suggests a zone hospitable to living organisms.

Key Points:

Initial discovery of jets from the South Pole region two years ago.

Organic compounds found are more complex than previously reported, including propane and benzene.

Liquid water in contact with rock indicates potential for an environment suitable for life. "

- PANDA AI Screenshot:

Summary Note

Generate a comprehensive summary note for all documents in your knowledge base.

Generate Summary Note

Summary Note

Summary Note works on video scenario

Summary Note:

1. **Overall Overview:**

The Cassini spacecraft has discovered an anomalously warm and geologically active region at Saturn's small moon Salus, particularly at its southern pole. This region emits jets composed of water ice crystals with organic compounds such as propane, benzene, hydrogen cyanide, and formaldehyde.

2. **Main Content (Classified by Theme):**

- **Geological Activity:** The South Pole region exhibits Tigerstripe fractures and is surrounded by jets.
- **Chemical Composition:** Jets emit complex organic compounds like propane, benzene, hydrogen cyanide, and formaldehyde.
- **Potential for Life-Sustaining Environment:** The presence of liquid water in contact with rock suggests a zone hospitable to living organisms.

3. **Key Points:**

1. Initial discovery of jets from the South Pole region two years ago.
2. Organic compounds found are more complex than previously reported, including propane and benzene.
3. Liquid water in contact with rock indicates potential for an environment suitable for life.

Copy to Clipboard

Scenario 4: Summary of Local Knowledge Based on Graph or words. (PDF input, Graph and summary output)

1. Local Knowledge base summary into visual graph

Summary Note

Generate a comprehensive summary note for all documents in your knowledge base.

Generate Summary Note

Summary Note

3 Key Points

1. The College of Professional Studies admits students without GREs, GMATs, or SATs required documents.
2. International applicants must meet deadlines for applying to start classes during their desired start term.
3. Application requirements include supporting documents such as official transcripts, statement of purpose, and recommendation letters.

Documents required:

- Official transcripts
- Copy of diploma
- Statement of purpose
- Recommendation letters

Application process:

- Admissions contact: [cpsadmissions@northeastern.edu]
- Withdrawal deadline: 1 year from the time of application withdrawal (if applicable)

*Note: *Note: This document does not include any additional information beyond the provided content.

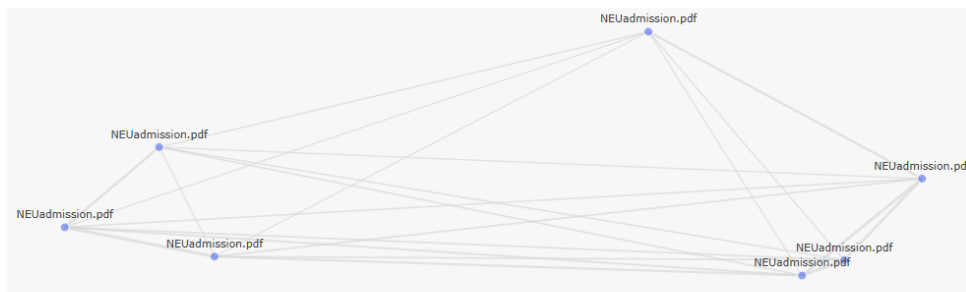
Copy to Clipboard

Knowledge Base Visualization

View the relationships and topic distribution of your documents

Generate Visualization

Knowledge Base Document Relationship Graph



Legend: Nodes represent documents, lines represent the similarity between documents. Node size represents document length, line width represents similarity.

2. Local Knowledge base summary into words:

Step 2: Ask Questions

who is hermann

Ask

Answer

Hermann is a software engineer located in Bellevue. He also enjoys cats and plays with an electric guitar as a hobby. </think>

Relevant Context

Source: testQuestion.txt

Hermann is a software engineer in Bellevue. Hermann loves cat. Hermann's hobby is electric guitar.

Relevance: 50.8%

Summary Note

Generate a comprehensive summary note for all documents in your knowledge base.

Generate Summary Note

Summary Note

****Summary Note on Hermann:****

– ****Overall Overview:**** Hermann is a software engineer residing in Bellevue, known for his hobbies and passion for cats.

****Main Content by Theme:****

1. ****Profession:**** Software Engineer
2. ****Location:**** Bellevue, WA
3. ****Hobbies:**** Electric guitar and affectionate cats

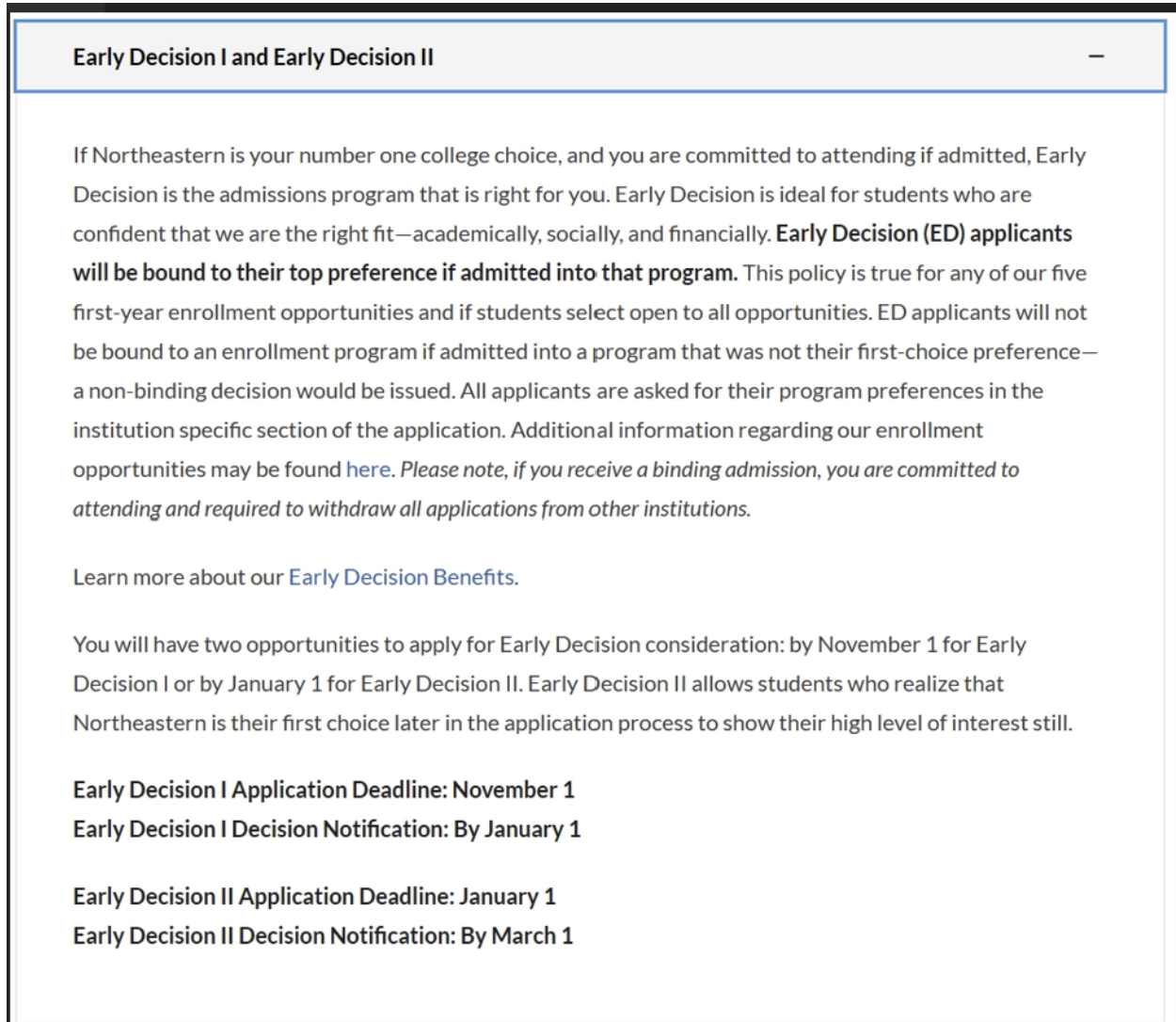
This concise summary captures Hermann's professional background, location, and key interests effectively.

Copy to Clipboard

Scenario 5: Answer questions based on an Image based Local Knowledge Base.

We fed the image below to the PANDA AI; it accurately loaded the image into its knowledge base and answered our question of the ED Application deadline.

Source Image:



The screenshot shows a webpage with a header titled "Early Decision I and Early Decision II". The main content area contains a paragraph explaining the Early Decision program, followed by a link to "Early Decision Benefits". Below this, there are two sections detailing application deadlines and decision notifications for Early Decision I and Early Decision II.

Early Decision I and Early Decision II

If Northeastern is your number one college choice, and you are committed to attending if admitted, Early Decision is the admissions program that is right for you. Early Decision is ideal for students who are confident that we are the right fit—academically, socially, and financially. **Early Decision (ED) applicants will be bound to their top preference if admitted into that program.** This policy is true for any of our five first-year enrollment opportunities and if students select open to all opportunities. ED applicants will not be bound to an enrollment program if admitted into a program that was not their first-choice preference—a non-binding decision would be issued. All applicants are asked for their program preferences in the institution specific section of the application. Additional information regarding our enrollment opportunities may be found [here](#). *Please note, if you receive a binding admission, you are committed to attending and required to withdraw all applications from other institutions.*

Learn more about our [Early Decision Benefits](#).

You will have two opportunities to apply for Early Decision consideration: by November 1 for Early Decision I or by January 1 for Early Decision II. Early Decision II allows students who realize that Northeastern is their first choice later in the application process to show their high level of interest still.

Early Decision I Application Deadline: November 1
Early Decision I Decision Notification: By January 1

Early Decision II Application Deadline: January 1
Early Decision II Decision Notification: By March 1

Answer Screenshot from PANDA AI:

PandaAIQA

Upload documents and ask questions – get answers based on your knowledge base

Default Role ▾

Status: ReadyDocuments: 3LM Studio: Connected

Check Connection

Clear Knowledge Base

Step 1: Upload Documents

Supported file types: TXT, MD, CSV, PDF, MP4, JPG, JPEG, PNG, BMP, GIF

Click or drag & drop files here to upload

Step 2: Ask Questions

ED Deadlines

Ask

Answer

The answer is "ED Deadlines are November 1 and January 1 for Early Decision II"

Relevant Context

Source: image

Regular Decision Choose Regular Decision if you would like the Admissions Committee to review information from the first semester of your senior year and to have additional time to put the finishing touches on your application. Regular Decision is non-binding. Application Deadline: January 1 Decision Notification: By April 1

Relevance: 43.8%

Source: image

If Northeastern is your number one college choice, and you are committed to attending if admitted, Early Decision is the admissions program that is right for you. Early Decision is ideal for students who are confident that we are the right fit—academically, socially, and financially. Early Decision (ED) applicants will be bound to their top preference if admitted into that program. This policy is true for any of our five first-year enrollment opportunities and if students select open to all opportunities. ED applicants will not be bound to an enrollment program if admitted into a program that was not their first-choice preference—anon-binding decision would be issued. All applicants are asked for their program preferences in the institution specific section of the application. Additional information regarding our enrollment opportunities may be found here. Please note, if you receive a binding admission, you are committed to attending and required to withdraw all applications from other institutions. Learn more about our Early Decision Benefits. You will have two opportunities to apply for Early Decision consideration: by November 1 for Early Decision I or by January 1 for Early Decision II. Early Decision II allows students who realize that Northeastern is their first choice later in the application process to show their high level of interest still. Early Decision I Application Deadline: November 1 Early

Scenario 6: Summarized the local knowledge base consisting of multiple file types. (Multiple different file types of input, and words output)

PANDA AI Output:

--- image ---

The following documents must be submitted:

- Six weeks prior to your desired start term for transfer applicants
- Four weeks prior to your desired start term for applicants not transferring credits

UNOFFICIAL TRANSCRIPTS

Transcripts must be mailed from the originating institution in a stamped and sealed envelope or emailed through “escript.”

ESCRIP TRANSFERS

Escrip Transfers: Northeastern University has partnered with a number of providers that offer affordable tuition rates to students who are not eligible for federal financial aid.

The following institutions are currently participating in this program:

- Boston College
- Dartmouth
- Harvard University
- University of Chicago
- University of Pennsylvania
- Yale University

Please note that Northeastern University is also a founding partner in this program and is committed to providing the best possible tuition rates to its students.

As an international applicant, there are important deadlines you must meet in order to begin classes during your desired start term. International applicants who will be studying in the United States on a student visa must abide by the deadlines found on the College of Professional Studies website (<http://www.cps.neu.edu/admissions/international/>).

International applicants should refer to the following information to submit application documents:

Mail supporting documents to the following address:

*Northeastern University—College of Professional Studies
Graduate Application Processing Center
P.O. Box 8150
Portsmouth, NH 03802*

If you are unable to send it to a P.O. Box, mail supporting documents to the following address:

*Northeastern University—College of Professional Studies
101 Belvidere St., 3rd Floor
Boston, MA 02115 USA*

It is important to include “College of Professional Studie”

and “International” in the address when sending mail or requesting transcripts from previous institutions.

FAX

Fax supporting documents to the following number: 617.373.8574.

EMAIL

Supporting documents that we recommend you submit via the Applicant Inquiry Form (<https://northeastern-network.force.com/GraduateAdmissionsFAQ/s/>):

- Unofficial transcripts

- Copy of diploma
- Statement of purpose
- Recommendation letters

--- NEUadmission.pdf ---

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*****Important Codes*****

**TOEFL code: 4999*

**FAFSA code: 002199*

ADMISSIONS CONTACT

Questions? Please visit the Graduate Admissions Support Center (<https://northeastern-network.force.com/GraduateAdmissionsFAQ/s/>).

3. Key points:

- 1. The College of Professional Studies has a rolling admissions process, but recommended application deadlines are six weeks prior to your desired start term for transfer applicants and four weeks prior to your desired start term for applicants not transferring credits.*
- 2. International applicants must meet specific deadlines for international students on a student visa, which can be found on the College of Professional Studies website.*
- 3. Application documents should include "College of Professional Studies" and "International" in the address when sending mail or requesting transcripts from previous institutions.*
- 4. Escript Transfers are available to students who are not eligible for federal financial aid and offer affordable tuition rates.*
- 5. Northeastern University is a founding partner in the Escript Transfer*