

# REQUIREMENTS:

## RECOMMENDED BROWSERS

- Google Chrome
- Mozilla Firefox
- Microsoft Edge

In fact, our application is deployed using Docker, allowing it to run in any modern browser environment.

## System Overview

- Frontend built with React for responsive UI
- Backend built with Python Flask for flexibility
- MySQL database for data persistence
- Dialogflow for natural language chatbot
- Docker for standardized deployment

## User Interface

- Homepage with project overview and menu
- Chatbot page for conversing with the AI assistant
- Admission odds page showing predicted chances
- University browse page to search schools and programs
- Account page to store user information

## Deployment

- Docker provides OS-level virtualization for streamlined deployment
- Docker Compose coordinates multi-container applications
- Containers created for frontend, backend, database services
- Automated build process for quick redeployment
- Horizontal scaling supported for high availability

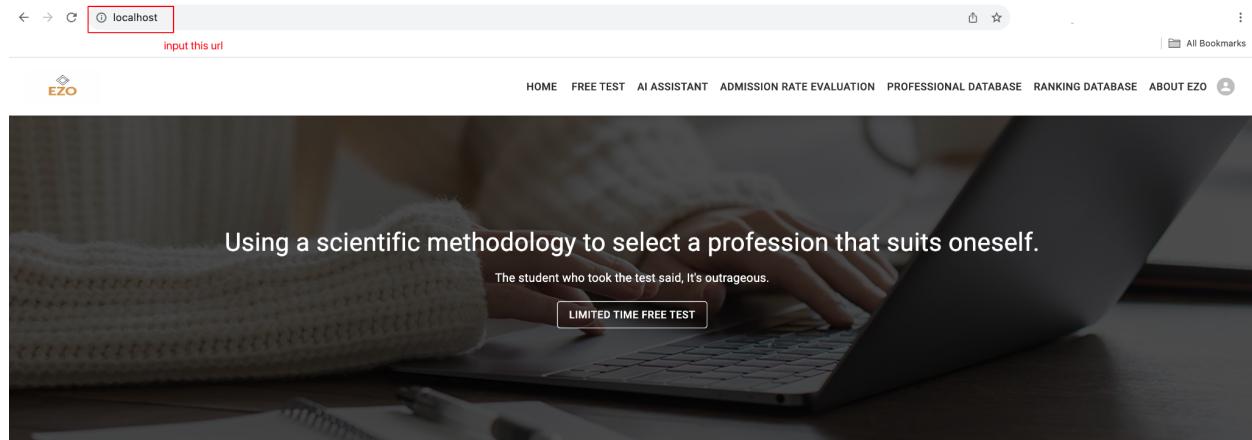
## Data Collection

- Web scraping scripts in Python gather university data
- Public datasets provide supplemental user data
- Secure protocols ensure integrity of collected data

For instructions on how to run the project, we recommend you refer to the readme file in the main directory. We will not repeat it here.

# START

Open up your preferred browser and go to the URL “localhost” as shown below, This webpage is the entrance to our entire project, and all functionalities can be found here. *Attention, it is necessary to follow the instructions in the readme file to run the project, otherwise further operations cannot be performed.*



"How can I choose my future major?"

**Step 1**

**Who am I?**

EZO assessment is based on the well-known Myers-Briggs Type Indicator (MBTI), which has been deeply customized for Chinese students. It

**Step 2**

**What are these majors?**

The test results can provide a strong reference for individuals, but more importantly, students can actively explore these unfamiliar and unknown

**Step 3**

**Can I chat with senior students?**

If you need to further understand the major you're interested in, EZO's professional tutor database covers 500+ outstanding and friendly senior

Click on the **AI ASSISTANT** button and you will enter the AI chatbot, where you can talk to the AI assistant and ask some things related to the school selection and project, don't worry about information leakage, we will not expose your privacy, please feel free to use it.

The screenshot shows the EZO AI Assistant interface. At the top, there is a navigation bar with links: HOME, FREE TEST, AI ASSISTANT (which is highlighted with a red border), ADMISSION RATE EVALUATION, PROFESSIONAL DATABASE, RANKING DATABASE, and ABOUT EZO. Below the navigation bar is a banner with the text "Let's chat with AI." and a background image of a person's hands holding a cup. The main area is titled "Chat with the AI assistant." It contains a conversation log where a user asks about language requirements and receives a response from the bot. Below the log is a text input field containing "Thanks" and a yellow "SUBMIT" button. A red arrow points upwards from the "SUBMIT" button towards the "AI ASSISTANT" link in the navigation bar.

Click on the **ADMISSION RATE EVALUATION** button and you will be directed to the personal background form filling page. By providing your relevant information, targeted university and degree program, our cutting-edge AI algorithm will predict the probability of your successful admission into the targeted university and degree program.

The screenshot shows the ADMISSION RATE EVALUATION form. The form fields include:

- name: pillar
- Gender: Male
- Undergrad School \*: Tsinghua University
- GRE Analytical Writing: 6
- GRE Quantitative: 123
- GRE Verbal: 150
- IELTS Score: 7
- TOEFL Score: 120
- GPA system \*: 5
- Undergrad GPA: 4.5
- Related Internship1: MCKESSON
- Related Internship2: AlphabetALPHABET
- Related Internship3: NESTL
- Paper1: T
- Paper2: A
- Paper3: B
- Target School \*: University of Southern California
- Target Major \*: CS

A large yellow "SUBMIT" button is at the bottom right. A red arrow points from the "SUBMIT" button back up towards the "ADMISSION RATE EVALUATION" link in the navigation bar at the top of the page.

After clicking '**submit**', we will present to you the probability of acceptance. As shown in the figure below, great news, your acceptance probability is 90%! Feel confident and submit your application.

The screenshot shows a dark blue header with the EZO logo and navigation links: HOME, FREE TEST, AI ASSISTANT, ADMISSION RATE EVALUATION, PROFESSIONAL DATABASE, RANKING DATABASE, ABOUT EZO, and a user icon. Below the header is a teal box containing the text "Your acceptance success rate is: 90 %". To the right of the text is a small yellow graduation cap icon with confetti. The main content area has a light beige background. It contains a message about AI guidance, a "CHAT WITH AI" button, and a section titled "To conclude" with a message about personal uniqueness and test results. At the bottom, there is a note about the ultimate decision lying in one's own hands.

Your acceptance success rate is: 90 %

Have a lot of questions about your major, university life and future work direction? Our AI one-on-one puzzle solving service can provide you with one-on-one guidance.

CHAT WITH AI

To conclude

Do not let the result of a single test restrict your imagination. Everyone is unique, and test results only predict patterns among people of the same type within a statistical range, providing you with some possible suggestions in a general direction.

Finally, the ultimate decision lies in your own hands. Use the test results as a reference for your career path, but do

Of course, if you don't know what colleges and majors you can choose from, you can click on **MAJOR EXPLORATION** button, where we have collected almost all majors, you can try to find what interests you.

The screenshot shows the 'Major exploration' section for Accounting. At the top, there's a navigation bar with links like HOME, FREE TEST, AI ASSISTANT, ADMISSION RATE EVALUATION, MAJOR EXPLORATION (which is highlighted with a red border), RANKING DATABASE, and ABOUT EZO. Below the navigation is a main title 'Major exploration' in a large orange header. Underneath are two rows of category buttons: 'BUSINESS MANAGEMENT' (Accounting is selected), 'SOCIAL SCIENCE' (finance, Hospitality and Tourism Management, Marketing, human resource Management, business analysis, financial engineering, Business management), 'ART' (Humanities, Science, Engineering, Medicine, Agricultural Science). To the right is a sidebar titled 'Similar majors' listing finance, Actuarial Science, business analysis, financial engineering, statistics, and economics. At the bottom right are two orange circular icons with a star and a right-pointing arrow.

## Accounting

### Professional introduction

Simply put, accounting is the recording, analysis, and communication of financial information. It first emphasizes the objective recording of various financial information generated by the enterprise in the daily operation process, and then uses professional financial analysis tools to organize and calculate the above-mentioned financial information in order to obtain the operating results of the enterprise in the current period. Finally, the financial data is interpreted to support the business decisions of corporate executives and formulate future business plans. It can be said that it is an integral part of social disciplines and an important management discipline. The research object of accounting is the movement of funds.

### Similar majors

- finance
- Actuarial Science
- business analysis
- financial engineering
- statistics
- economics



When you see your favorite major, you can click on the **five-pointed star** button in the lower right corner to collect it.

This screenshot is identical to the one above, showing the 'Major exploration' section for Accounting. The navigation bar, main title, categories, and sidebar are all the same. The 'Accounting' button in the main navigation row is highlighted with a red border. The bottom right corner features the same orange circular icons with a star and a right-pointing arrow.

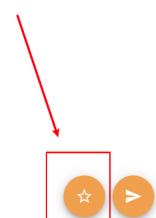
## Accounting

### Professional introduction

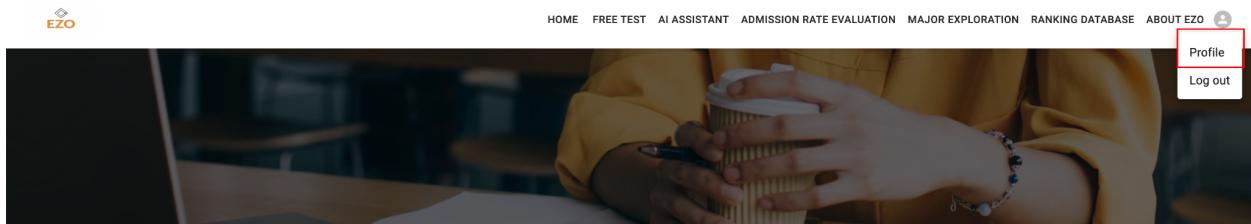
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### Similar majors

- finance
- Actuarial Science
- business analysis
- financial engineering
- statistics
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When you bookmark it, you can view it in the top right corner



Simply put, accounting is the recording, analysis, and communication of financial information. It first emphasizes the objective recording of various financial information generated by the enterprise in the daily operation process, and then uses professional financial analysis tools to organize and calculate the above-mentioned financial information in order to obtain the operating results of the enterprise in the current period. Finally, the financial data is interpreted to support the business decisions of corporate executives and formulate future business plans. It can be said that it is an integral part of social studies, also ...[Learn more](#)



In the process of browsing, if you come across a major you like, but are not sure whether you are suitable, don't worry, we have thoughtfully provided two professional assessments: **16 PERSONALITY TESTS** and **HOLLAND CAREER INTEREST TEST**. You can click on the page you browse, or you can do it through the navigation bar.

are you ready?

- Five-year course to become a CPA (Certified Accountant)
- Learn how to file taxes
- Learn tax law
- Measure a company's revenue and profits
- Create and analyze data tables
- Learn to use GAAP (Generally Accepted Accounting Principles)

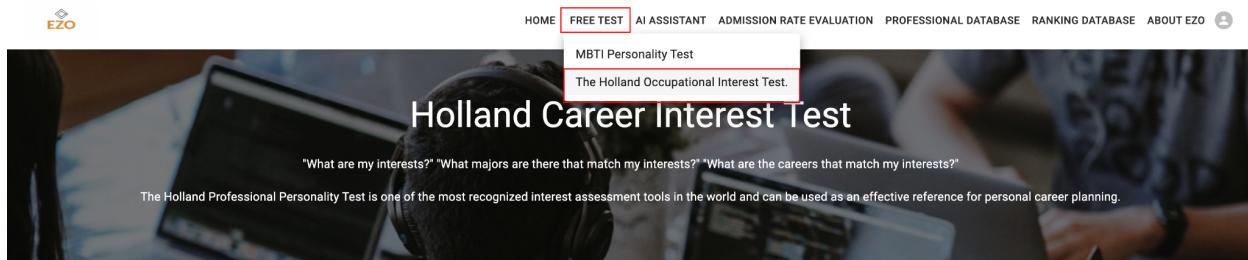
[Haven't done the EZO test yet?](#)

[16 PERSONALITY TESTS](#)   [HOLLAND CAREER INTEREST TEST](#)

What did the senior say?

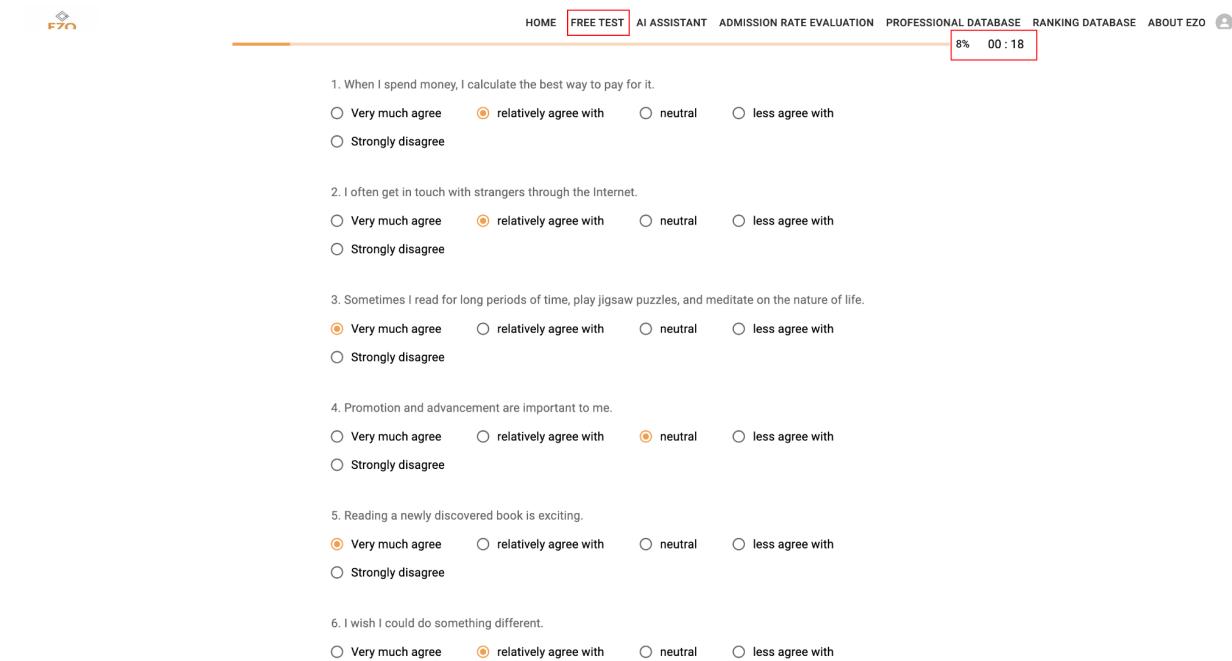
"A friend of mine who has become a CPA (certified accountant) told me that the classes in school are sometimes boring, but once you enter the business environment after working, you will be very excited and knowlege you learned is worth it!"

When you enter the assessment page, you can either make a new assessment or go to your history to view your previous assessments.



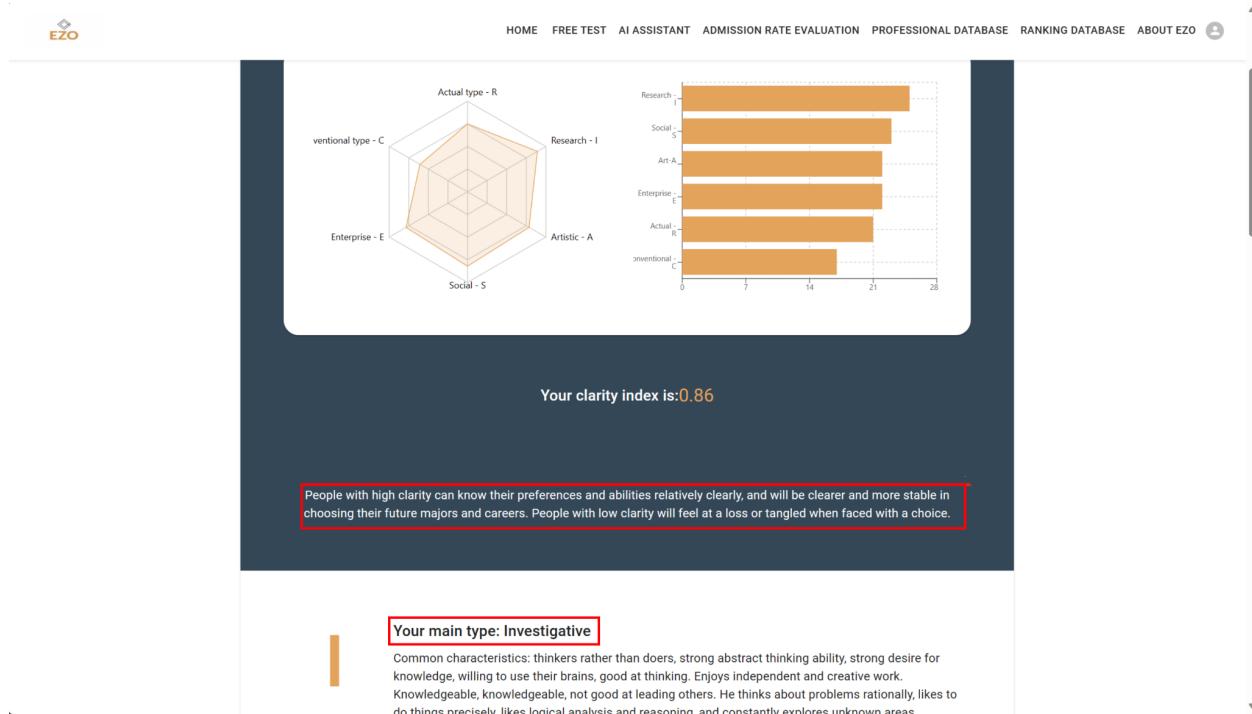
The screenshot shows the homepage of the Holland Career Interest Test. At the top, there is a navigation bar with links: HOME, FREE TEST (highlighted with a red box), AI ASSISTANT, ADMISSION RATE EVALUATION, PROFESSIONAL DATABASE, RANKING DATABASE, and ABOUT EZO. Below the navigation bar, there are two buttons: MBTI Personality Test and The Holland Occupational Interest Test. The main title "Holland Career Interest Test" is displayed prominently. Below the title, a subtitle reads: "What are my interests?" "What majors are there that match my interests?" "What are the careers that match my interests?" A descriptive text states: "The Holland Professional Personality Test is one of the most recognized interest assessment tools in the world and can be used as an effective reference for personal career planning." Below this text, there is a call-to-action: "Please be sure to read the following 4 points before taking the test!" followed by four numbered points with corresponding icons: 1. A stopwatch icon with the text "The test has 90 questions in total and takes about 15-20 minutes.", 2. A scales icon with the text "There is no right or wrong option", 3. A person meditating icon with the text "Please adjust to the most relaxed state to answer the questions", and 4. A hand holding a heart icon with the text "Answer intuitively, don't imagine yourself". At the bottom of the page are two buttons: "START TESTING" and "VIEW PAST TEST RESULTS".

When you click **Start Test**, you will be taken to a new page. Here you can take the test. Wow, there are so many options here, it might take a little time. However, the more options you have, the more accurate your results will be.



The screenshot shows a single question from a survey. The question is: "1. When I spend money, I calculate the best way to pay for it." Below the question are five response options: "Very much agree" (radio button), "relatively agree with" (radio button, selected), "neutral" (radio button), "less agree with" (radio button), and "Strongly disagree" (radio button). To the right of the question, there is a progress bar showing "8% 00 : 18". The rest of the page contains other questions and response options, which are mostly cut off at the bottom of the screenshot.

Once you've completed the assessment, you'll be taken to a **results page** where your results are displayed. He will give some targeted advice. But don't be bound by any standards, just be yourself.



 HOME FREE TEST AI ASSISTANT ADMISSION RATE EVALUATION PROFESSIONAL DATABASE RANKING DATABASE ABOUT EZO 

If you are an artistic person, you may have the following characteristics:



In terms of interest, you like

- Art, music, drama
- Language and Literature
- different culture
- irregular things
- do something influential



In terms of values, you agree with

- beauty
- free expression
- objectivity
- public recognition
- Diversification



In terms of ability, you are good at

- Improvisation
- artistic presentation
- act intuitively
- innovation
- Dealing with stress



In terms of quality, you tend to

- creativity
- originality
- independence
- wise
- disordered

Majors that may suit you:

design (A,S)	architecture (A,I,R)	linguistics (A,I,R)
English Language and Literature (A,I,S)	Journalism (A,S,E)	philosophy (A,I,S)
Urban Plan (A,R,I)	video making (A,I)	arts management (A,S,E)
public relationship (A,I,S)		

When you want to view your past evaluations, you can click on **VIEW PAST TEST RESULTS**, or you can directly click on your profile picture and select "profile".

 HOME FREE TEST AI ASSISTANT ADMISSION RATE EVALUATION PROFESSIONAL DATABASE RANKING DATABASE ABOUT EZO 

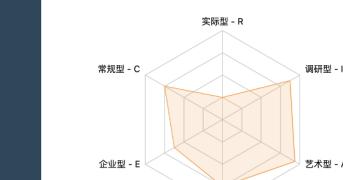
[Profile](#)  
[Log out](#)

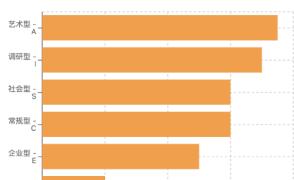
😊 MBTI TEST REPORT
📋 HOLLAND TEST REPORT
⭐ PROFESSIONAL COLLECTION

AIS Suitable majors: design, architecture, linguistics ...

2023-10-29 13:32:35 

**Your test result is: AIS**





职业类型	得分
艺术型 - A	高
调研型 - I	中等
社会型 - S	中等
常规型 - C	中等
企业型 - E	低
实际型 - R	最低

Once you know yourself, you can go back to **MAJOR EXPLORATION** to continue browsing, where we also have books and courses for different majors that you can click to view.

The screenshot shows a section titled "Recommended for self-study" with two main categories: "books" and "video".

**books:**

- [Fundamentals of Computational Theory](#) Harry R. Lewis / Christos H. Papadimitriou  
Douban: 8.7
- [Concrete Mathematics](#) Ronald L.Graham / Oren Patashnik / Donald E.Knuth  
Douban: 9.6
- [Personnel](#) Tom DeMarco/Timothy Lister  
Douban: 8.2
- [Python Programming](#) [US] Eric Matthes  
Douban: 9.1
- [How is the Internet connected?](#) [Japanese] Tsutomu Tone  
Douban: 9.1
- [Hackers and Painters](#) [American] Paul Graham  
Douban: 8.7

**video:**

- [\[Open Class\] Crash Course Computer Science](#)
- [\[Open Class\] Harvard Computer Science CS50](#) with Chinese and English subtitles, 20 credit hours, lectured by Professor David J. Malan of the Department of Computer Science at Harvard University
- [A must-read guide to bias when applying for computer science majors](#)
- [\[Open Course\] MIT: Introduction to Computer Science and Programming](#)
- [Programmer sister: How did I change my major from liberal arts to CS? How to design the application essay? Sharing experience in applying for a master's degree in computer science in the United States](#)
- [The first-year student who excelled in Harvard's CS major actually only had to take four courses in one semester](#)

At the bottom right are two orange circular icons with white symbols: a star and a right-pointing arrow.

The screenshot shows two boxes: "Related courses" and "List of sub-majors".

**Related courses:**

[INTRODUCTION TO COMPUTER PROGRAMMING](#)

Introduction to the fundamentals of computer programming through media computing. Students will learn to write interactive graphics programs. Basic language concepts such as variables, conditionals, loops, functions, and arrays. Programming concepts such as coding style, modular design, testing and debugging. Media concepts such as 2D graphics drawing, input, animation, and image processing.

**List of sub-majors:**

[PROGRAMMING LANGUAGES AND COMPIRATION](#)

Study the conversion of high-level languages into computer-recognizable binary, so as to achieve the results we want as output through calculation. This transformation process is the compilation process.

The footer contains three columns of links:

- About Us:** About Us, Join Us
- Our Services:** Major Selection Test, AI One-on-One Major Introduction, Major Exploration
- Contact Us:** +65-8888 8888, ezo@ezo.email

At the bottom right are two orange circular icons with white symbols: a star and a right-pointing arrow.

Once you have acquired a good understanding of your field of study, should you wish to peruse the ranking of universities that offer programs in your field, simply click on the **RANKING DATABASE** tab on the navigation bar.

# Institute of Systems Science, National University of Singapore

The screenshot shows the EZO website's ranking interface. On the left, there is a sidebar with a dropdown menu for "Professional classification" containing items like "Overall ranking", "Business Management", and "Marketing [QS Master] - QS". On the right, there is a search bar for "SEARCH RANKING BY SCHOOL" with a dropdown for "country / region" set to "All". Below the search bar, a list of universities is shown with their ranks, logos, and regions:

Rank	University	Region
3	Cambridge University	U.K.
5	Harvard University	USA
6	Caltech	USA

Here, you can also view the program rankings within the school according to the school rankings.

The screenshot shows the EZO website's ranking interface for ETH Zurich. The top part of the page has a search bar for "SEARCH RANKING BY SCHOOL" with a dropdown for "School name" set to "ETH Zurich (Swiss Federal Institute of Technology)". Below this, the university's logo and name are displayed, along with its global ranking and region.

Majors	Global ranking	Sources
geology	1	QS
Actuarial Science	4	QS
architecture	4	QS
zoology	6	QS

The description above provided a basic usage of the functionalities we offer. You can try them yourself to explore more interesting and practical features. Of course, we hope to

have a feature that can substantially assist you in resolving the confusion you may encounter when choosing schools and majors.