

# **How Research Could Support Your Application Materials**

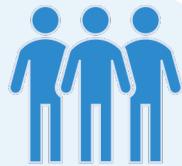
# Content

- **What Universities are Looking**
- **Resume**
- **Personal Statement**
- **Recommendation Letters**
- **How to Use These Application Materials**

[Please click here to see the Lecture Video](#)

- **What Universities are Looking**

# What Are Valued by Top Universities



## Excellent Learning Environment is Essential for TOP Universities

Universities value the learning environment they created for their students, therefore the top priority would be to find the best students. Yet, universities not only evaluate students' academic ability, they also want students with diverse backgrounds, hobbies and personalities to demonstrate the uniqueness.



## Target Student Groups

Universities want alumni with achievements to leverage their importance and status. Therefore they need an evaluation system to quantify and evaluate students' performance and also their future potentials.

# Your Application Materials Includes:

**Stanford University** looks for intellectual vitality with a love of learning and interaction with teachers and fellow students. They are looking for the most compelling students, not the most competitive. 75% of the students who apply are qualified. They must look elsewhere for more information. The essay and teacher letters of recommendation are very important. Respect for others is also important.

**Yale** is looking for a unique student. Explain your passion and engage in your classes in high school.

**Brown** is looking for self-motivated, active thinkers and learners. You need to have a passion about something. Do you have intellectual curiosity?

**Harvard** is looking for well-cultivated interests, specialists and focused students who are involved.

**Princeton** is looking for students who challenge themselves and bring a unique viewpoint to campus. The essay needs to fit with you and show your true voice.

**Dartmouth** wants to know what you will bring to the college. Peer recommendations are important.

Intellectual Vitality

Unique

Self-Motivated

Focused

Unique Viewpoint

Bring to College

Different universities and colleges (undergraduate and graduate admission) have different requirements regarding application materials requested, yet there are several standard application materials for every student to prepare.

Apart from Standardized tests and language proficiency tests, which define the fundamental requirements, there are more personalized materials needed to demonstrate one student's specific academic ability and personal qualification for being admitted to the target universities and colleges.

In other word, their uniqueness.

Let's see what are commonly included in your application materials...

# What Are Evaluated by Top Universities



Academic

- GPA / Ranking
- SAT/ACT/SATII/A-LEVEL/GRE/GMAT/LSAT etc.
- TOEFL/ IELTS

Official Transcript,  
Standardized tests and  
language proficiency tests



Extra curriculum Activity

- Student Union/Club Activities/Sports
- Volunteer/Debate etc.
- Research experiences



Extra curriculum Activity

- Internship
- Volunteer experiences
- Working experiences
- Research experiences

Resume, Personal Statement, Letter of Recommendation, Publication, etc.



Uniqueness

- Academic Awards/Academic Publication
- Innovation
- Unique hobbies

# Participate in Online Project Based Learning Programs

You may ask what is Project Based Learning...

- **Project Based Learning (PBL)** is a teaching method where students learn by actively engaging in real-world and practical projects. In PBL classroom, instructors will make learnings come live for students. Students will demonstrate their knowledge and skills by creating a product or presentation for a real audience and develop deeper understanding about knowledge, as well as their critical thinking, communication, and creativity skills.
- **Online PBL programs** provides an even innovative method by gathering students from all over the world, during which, they will learn from professors from top universities without geographic boundary.
- These online PBL programs concentrate academically (**unique research experiences**, competitive results and strong recommenders) and practically (e.g. Group projects that contains real world applications)

## Stanford Applicant Rating System

**Intellectual Vitality Rating of 1 (highest rating):**

- Independent academic research outside the classroom with a college professor leading to published research in a journal
- Stanford “intellectual vitality” supplemental essay
- Showing a true love of learning for the sake of learning at a high level outside of the classroom

Quote: Former Admission Officer from Stanford University, 2017/11/17

## **What you could give more thoughts on during your learning with us:**

- Why do I want to learn about this program?
- What is my motivation to join this program?
- How could I use my experiences in this program when I prepare my application materials?

Let's see following slides on how to use research support your application...

- **Resume**

# Resume

- Resume is one of the most important supporting application materials presented to admission officers, which contains applicants' academic background, past research and working experiences, volunteer and other unique activities, skills, certificates and hobbies.
- The principle of designing your resume is to keep it **precise, clear, and straightforward**.

# First, categorize your past experiences into different sections that have different functions in a logic order.

**Objective:** if you have clear intention on who will read your resume, you could clearly indicate your objective here, otherwise, this section is an optional.

**Education** is a must, where you mention schools you attend now and before, with your GPA, and core courses that you have been taken that you think would be an add-on to your resume

**Experience** is a must, where you write down your past experiences in chronological order, normally the most recent one will be at the top

Skills is an optional but an addon, you could write down skills such as programming language, second language that you know, and some other skills that you are good at to impress your readers.

Other sections: you could write your volunteer experiences, your hobbies, or any section that you would like to address

Current Address  
123 Grove Street  
Potsdam, NY 13699

**Full Name**  
[email@clarkson.edu](mailto:email@clarkson.edu)  
Mobile: (123) 555-5555

#### OBJECTIVE

An employment opportunity in a Computer Science related field.

#### EDUCATION

**Clarkson University – Potsdam, NY** B.S. Computer Science, Mathematics; minor: Business/Administration  
GPA: 3.5 – Dean's List 6 Semesters May 2010

**Newcastle University – Newcastle, NSW, Australia**  
GPA: 90 – High Distinction

Study Abroad Exchange Program  
Completed: July 2009

#### RELEVANT EXPERIENCE

**Eastman Kodak Company – Rochester, NY** Software Development May 2008 – August 2008

- Led team from many positions in the company in finding and implementing a new bug-tracking solution.
- Investigated current system (Lotus Notes), created requirements for a new tool, conducted meetings and demonstrations of possible solutions, created proposal for recommended course of action, configured and administered the new system (JIRA) after decision was made.
- Created applications for migrating data between systems/databases.

#### Software Quality Assurance

- Tested new software releases for the Kodak Picture Kiosk.
- Designed and executed test procedures, reported incidents.
- Organized and led meetings of project leaders, developers and QA team members for each original test procedure. Learned to work independently and in a group setting.

#### Clarkson Association for Computing Machinery – Potsdam, NY

September 2007 – Present

- Created and administer the Clarkson ACM Website using Dreamweaver and Photoshop.
- Attend seminars by guest speakers in the computing industry.

#### SKILLS

- Programming Experience – C++, Java, C#, XML, and Web Development.
- Writing Skills – Ability to efficiently produce concise, organized reports, labs and memos.
- Public Speaking – Finalist in Senior High School Public Speaking Competition. Gained confidence and learned to engage audiences with my creative speeches.

#### EMPLOYMENT

##### Clarkson Writing Center – Potsdam, NY; Tutor

August 2007 – Present

- Conduct writing conferences with students. Identify weaknesses in organization, development and style. Guide writers in solving the problems.
- Learned valuable interpersonal communication skills by collaborating with students from many fields. Trained in writing and tutoring.

#### TEAMWORK

- Ski Club
- Intramurals – Captain of Basketball and Softball teams

September 2007 – Present

September 2006 – Present

Put your name, email and phone number up in the front

May 2008 – August 2008

For each experience, you need to write down the clear time period, normally put it in the same line aligned right

Second, within each section for each experience, you only need to highlight **one or two** parts that could mostly reflect your qualities and keep the rest simple. => to help your readers find focus and not get lost.

## **RESEARCH**

### **Price or Loyalty Program? Consumer Behavior on BU Students' Airline Choices**

**Feb. 2016 – Jun. 2016**

- Conducted airline industry background research, chose the theoretical framework, identified dependent and independent variables, developed measures, distributed and collected surveys, and using SPSS to prepared data for the analysis

### **Website Project “New Bridge”: Bridging The Information Gap between Chinese Schools and American Teachers**

**Feb. 2016 – Jun. 2016**

- Led the team to communicate with the client New Bridge, developed website proposal and conducted primary research such as focus groups to create user research and modeling report
- Used media techniques such as HTML CSS, informational architecture, and Google Analytics to create the website for our client

### **Zhejiang Province Students' Science and Technology Innovation Program, Team Leader**

**Nov. 2012 - Nov. 2013**

#### *Different Media Choices by Different Social Strata*

- Implemented primary research, which includes creating surveys, arranging the distribution method and examining collected data using SPSS
- Conducted secondary research, independently wrote the literature review and spearheaded the composing of the final paper

Use bullet points to emphasize different aspects within one research experience.

Start your sentence with past tense and describe what you have achieved during this experience with as many details as possible.

Try to explain **what you have done**, rather than list facts of what have happened. The latter will not reflect your ability.

Thirdly, keep your resume's format clear and professional, and be **200% cautious** about details!

Use a standard font such as **Arial** or **Times New Roman**.

In general, margins should be one inch at the top, bottom, left, and right.

If at all possible, trim your **resume** down to **one page**. Use 2 pages only if you have many years of experience and all your accomplishments cannot fit on one page

Name - size 16

Section Headings - size 14

Other text - size 10 - 12, no smaller than 10

# You could add this online PBL research experience into your resume!



Zhang, admitted in Yale University

- Studied the basic theories of air quality modeling
- Calculated the 2010 vehicle emission factors using the MOBILE6-China model
- Utilized a GIS grid-based method to analyze pollutants concentration related to vehicle emission in Beijing and developed a vehicle emission inventory

## Highlights:

- Used past tense such as Studied, Calculated, and Utilized to demonstrate his research experience => **accurate and lively**
- His research is closely linked to his daily life, which reflects his observation and thinking about the real world problem => **shows self-motivation, critical thinking and ability to tackle real life problem**

- **Personal Statement**

# Personal Statement

Personal statement is one of the most important application materials needed when you colleges/universities, and scholarship application.

The personal statement is

- **Your profile picture:** your personal statement should produce a picture of you and show the committee a **vivid and live person**.
- **An invitation:** to invite the committee to get to know you, and make them **feel welcomed** to know more about you.
- **Your story:** everyone has a story to tell, but what is your story that distinguish yourself from others that shows your **personal signature**, your **uniqueness**, and your **own story**.

The personal statement is **NOT**

- **An academic paper:** Academic paper focuses on facts and research, and we are taught to eliminate "I" from academic writing, yet in your personal statement, you need to **bridge the gap between you and your readers**, therefore you need to emphasize "I" and engage in a more personal perspective.
- **A resume:** not to repetitively indicating your past experiences like what you do in your resume, consider all your application materials as a whole and this personal essay that share a different aspect of you that cannot be seen in other materials.
- **A personal diary:** you should share what are relevant and that you are comfortable sharing with.
- **Most importantly, don't assume what your readers want to read**, share your story, **they want to know you**.

# To write an excellent personal statement, you need to firstly ask yourself these questions:

- Who am I? What is the defining moment of my life?
  - E.g.: Things that you spent time on that make you forgot everything else
  - An accident or injury that changes your mind or provide you more thoughts
  - A defining talk with your friends/families
  - The challenge that you take for the first time in your life
  - Something new you found about your family
  - Moving to a new city that gives you a new perspective
  - Traveling somewhere, or learning about a new culture
  - Your first pet (new responsibilities as a fur mom or dad)
  - A best friend you made (or lost)
- What is the things that I really care about from the bottom of my heart.
- Why I want to apply for this university and this program? What is the self-motivation that drives me to make this decision, to study aboard, and especially to this university and this program?
- What is the must reason for the college and university to accept my application, what is my strengths and advantages, and what contributions I could make for this target university/college and the program that I apply for.
- What is the connections between your past experiences and your application for this specific program/university?
- **Make it personal!!**

# Find the topic and go deeper about it

- When you brainstormed all the potential topics and ideas that could be incorporated into your personal statement, categorize them into different part and start writing.
- Don't worry about the format, the structure and everything else, just do the **free writing!**
- Through writing, you will be able to find out the ideas that you feel most comfortable with writing and have the most "legs" to elaborate, which you could often find the following features:
  - You feel very easy to write down (your inspirations seem ongoing about this idea and you could write a lot about it or even couldn't stop!)
  - You could tell a lot of stories or different aspects to prove this idea
  - You could feel from the bottom of your heart that this is something that you are passionate about and that you value most
  - You may find this part not very easily to be captured or revealed by your other application materials, yet it is actually something very important for you to make those application decisions.
  - You could feel a lot of emotions while writing it

# Actually writing the personal statement after you find your heart topic

Once you choose your main theme, now is the time for you to actually write and rephrase your personal statement. Here are some important tips and instructions for you to follow up:

- **Value your own story**, and make it personal, try not to think that this is something that somebody else has already done before, because this is your personal story!
- Use the tone to reflect who you are, make it sounds like **YOU**.
- Think from your readers' perspective, since your audience will be admission committee, please make sure to convey the right message that shows your **competitiveness** as well as your **strength**.
- Address: **story, the implications/learnings/reflections from the story**, and the **connection** between this and your college application.
- Make sure your personal statement **follow the requirements** from the university and the program that you apply for, including the aspects that they ask you to cover, **the total length** of your personal statement and anything you notice that needs to be contained.
- **Editing** is very important! After your first draft of the personal statement, make sure you re-read and edit, and also ask others to read it and provide you their suggestions.

# Link this online PBL program with the story of your personal statement: your **irreplaceable** experiences!



Zhang, admitted into Yale University

However, I do not intend to restrict my vision in pure scientific research. Therefore, my second academic experience focuses more on applied scientific realm. I joined an online research program led by [REDACTED] from Cornell University on "Establishing of the Vehicle Emission Inventory for Beijing". Upon abundant literature study, I have completed numerous calculations of the pollutants (CO, HC, and NOx) concentrations in the atmosphere and developed a GIS grid-based emission inventory for the Beijing urban area using the vehicle activity data from travel demand modeling, in conjunction with emission factors from the MOBILE6-China model. This inventory makes instant pollution index in Beijing easily accessible for reference, which greatly assists the decision making of traffic control. It also reveals the severe air pollution in Beijing through a quantitative and direct way and thus reinforces my determination of being an environmental professional.

## Highlights:

- Describe the reason why he wanted to do an online research project and also elaborate about how he did the research.
- Elaborate the connection between doing this research and also his choice of application.

- **Recommendation Letter**

# Recommendation Letters

Recommendation letter is one of the most important application materials. It is written by your previous or current teacher, employer, colleague, or someone who could recommend regarding your academic or other work and internship performances.

The main goal for recommendation letters is to vouch for your skillsets, your achievements and your qualifications.

For your application recommendation letters, normally the recommendation letters will be about how your recommender evaluate your **academic performance, research ability, leadership, critical thinking ability, communication skills, personalities and characteristics** and so on.

# Getting your unique recommendation letters from the online research PBL program

- Participating in this online research PBL program, you will have the **first hand** learning experiences with top universities professors and research fellows.
- Learning knowledge about a certain topic is important, **learning to do research** is actually more important. By learning to do research, you will not only grow your research experiences with your fellow students, but also to learn **a way of thinking like a real scholar**, which will be beneficial for your future academic path.
- Recommendation letters from top universities professors and their research fellows will be **competitive, unique, and authentic!**

- **How to Use These Application Materials**

# Let's open the research gate and hit your goals!

## Our student Zhou



- High school student
- Participated in the online research PBL program on topic of analyzing a mechanosensitive ion channel Piezo1 structure and mutation-caused diseases
- Got offer from **University of Chicago**

December 18, 2019

**CONGRATULATIONS!**

2019-12-18T14:57:00

Zhou

Ningbo, Zhejiang 315100  
China

Dear [REDACTED]

Congratulations! It is my great pleasure to inform you that you have been admitted to the University of Chicago's Class of 2024. With your exceptional academic record, strong voice, and impressive accomplishments, you have distinguished yourself in one of the largest and most competitive UChicago applicant pools.

For over a century, the College's academic tradition has thrived because of students like you who crave ideas that captivate, provoke, and transform. We imagine you in our laboratories and on our performance stages, in our libraries and on our athletic fields, immersed in your passions and engaged in the pursuit of knowledge. As part of our College Houses, you will cultivate lifelong friendships; in our classrooms, you will create and inhabit a vibrant intellectual space with your peers and professors.

In the coming months, I invite you to explore all that UChicago has to offer. Join us April 16-17 or April 23-24 for one of our Admitted Student Open Houses, at which you will experience firsthand a rich community of scholars, friends, and neighbors. The enclosed information provides details about how to arrange your visit and confirm your enrollment at UChicago. We look forward to receiving your reply by January 16, 2020.

We invite you to be part of a school with a glorious history and an exciting present. We look to you to help us grow, to grow with us, and to be part of a tradition that elevates us all.

Sincerely,

James G. Nondorf

Dean of Admissions and Financial Aid

# How to achieve your goal of getting into the ideal university?

- Developed research interests when learning the online PBL research program
- Gained **the recommendation letter** from the instructor
- Found research interests under the guidance of the instructor and started prepare academic paper and later this paper got accepted by **64<sup>th</sup> Biophysical Society Annual Meeting**, as well as **SCI journal Biophysical Journal**
- Finding your real passion and dig deeper is very crucial!

Sept [REDACTED]

TO WHOM IT MAY CONCERN:

[REDACTED] joined my program in April [REDACTED] the research of analyzing a mechanosensitive ion channel Piezo1 structure and mutation-caused diseases. In this program [REDACTED] read carefully three key literature on the cryo-EM structural study of Piezo1 and many related papers on this topic. Working with the guidance of me, he set out on this project with an amount of energy, drive, and resourcefulness that is unusual in a high-school student just at the beginning of his research project, taking for comparison all students I have mentored over the years. Within two weeks of work with me, he was able to master the critical reading and structural analysis tools, and within four weeks of the start of his project, he already had novel results, having been able to map the mutation on the structure of Piezo without any of my help.

[REDACTED] final presentation after two-month work on the project without difficulty, displaying excellent knowledge of the relevant literature in Piezo structure and function, and explaining his idea on the relationship between mutation and corresponding diseases. The



## Sponsor Information

Sponsor: Jing Xu

Member Type:

Email: [REDACTED]

Institution/Department: GEC Academy

State/Country: 11, China

**Good luck with your studies!**