

Doctoral Program Application

Joonhyuk Jung

April 8, 2024



About Me

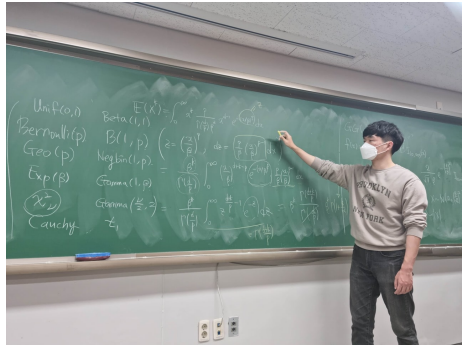


1. Seoul National University (2017-2023)
 - B.S. in Statistics and B.A. in Economics
 - Academic Advisors: Prof. Kwonsang Lee and Yongdai Kim
2. The University of Chicago (2024-)
 - Ph.D. in Statistics

Please visit <https://joonhyuk.com> for more details.



Why PhD?



Unif(0,1) Beta(1,1) $E(X) = \int_0^1 \frac{1}{1+x} dx = \ln 2$

Bernoulli(p) $B(1, p)$ $Z = \left(\frac{1}{p}\right)^{\frac{1}{2}}$ $dx = \left(\frac{1}{p}\right)^{\frac{1}{2}} dt$

Geo(p) NegBin(1,p) $= \frac{d^2}{dt^2} \int_0^{\infty} \int_0^{\infty} \frac{1}{1+pt} \frac{1}{1+pt} dt$

Exp(β) Gamma(1,p) $= \frac{d^2}{dt^2} \int_0^{\infty} \int_0^{\infty} \frac{1}{1+pt} \frac{1}{1+pt} dt$

X_{ij}^{\rightarrow} Gamma($\frac{1}{2}, \frac{1}{2}$) $= \frac{d^2}{dt^2} \int_0^{\infty} \int_0^{\infty} \frac{1}{1+pt} \frac{1}{1+pt} dt$

Cauchy Z_1 $\int_{-\infty}^{\infty} \frac{1}{1+x^2} dx = \pi$



Dear Joonhyuk:

We are delighted to confirm your offer of admission to the doctoral program in Statistics (PhD). This letter contains updated information about your funding package (details in the table below).

Your offer of admission includes a funding package worth \$135,417.00:

- A full-tuition merit scholarship, worth \$79,136.00 (as of 2023-24).
- A yearly stipend or assistantship of \$45,000.00.
- Coverage of the Graduate Student Services Fee, \$1,864.00 (as of 2023-2024).
- Payment of the individual University Student Health Insurance Plan (U-SHIP) premium \$4,917.00 (as of 2023-2024).
- McCormick Fellowship of \$4,500.00, as described in your original notification.

Beyond Funding



“Under the mentorship of esteemed professors, the freedom to pursue my desired research is already a great privilege. Yet, the added bonuses of financial support and the attainment of a degree make this proposition incredibly enticing. Where else could one find such an appealing opportunity?”

Why Chicago?



1. Top three Statistics PhD program in the U.S.
2. A high level of interest in “theoretical” aspects of statistics
3. Six current Korean PhD students in the Department (under the 4th year)
4. An esteemed alumna of the University of Chicago:



Requirements



1. Statements

There may be additional requirements, which may vary slightly from each school. Be sure to refer to the application guidelines of each department for accurate information.

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- Statement of Purpose (SOP) or Candidate Statement

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7. Writing Sample (Optional)

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8. (Money)

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Please discuss your academic and career objectives. Be as specific as you can about the fields in which you plan to study and your particular research interests. Beyond what is apparent from your transcripts, describe your preparation for your proposed program of study, including research projects in which you have participated. Your statement is an important part of your application. It should be clear, concise, and well crafted. (1,000 words max)

Writing SOP



1. Check the word and/or page limit! (500, 1,000, or 1,500 words; one or two pages)

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Please describe how your personal background and experiences influenced your decision to pursue a graduate degree. In this section, you may also include any relevant information on the following: (500 words max)

- How you have overcome barriers to access higher education
- How you have come to understand the barriers faced by others
- Your academic service to advance equitable access to higher education for women, racial minorities and individuals from other groups that have been historically underrepresented in higher education
- Your research focusing on underserved populations or related issues of inequality
- Your leadership among such groups

Writing PS



1. Some schools do not require PS.

Writing PS



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 - Still, you can submit it as an additional document.

Writing PS



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2. PS should not overlap with SOP.

Writing PS



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 - Still, you can submit it as an additional document.
2. PS should not overlap with SOP.
3. Extracurricular activities DO matter in the United States.



1. Choose professors who are well acquainted with your academic achievements and research accomplishments.

LOR



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2. Contact professors as early as possible.



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2. Contact professors as early as possible.
 - Remember that they are always very busy.



1. Refer to my CV.



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2. Some schools might require a descriptive list of coursework in addition to the formal transcript.
3. Taking a significant number of upper-level or graduate-level courses related to the field can be advantageous.

Coursework Description



Division	Dept.	Course #	Title	Grade
Undergrad. Junior	Stat.	326.311	Mathematical Statistics I	A
		326.312	Mathematical Statistics II	A+
		326.313	Regression Analysis and Lab.	A
		326.316	Multivariate Data Analysis and Lab.	A+
	Math	881.004	Complex Variables	A+
		3341.001	Modern Algebra	A+
	CS	4190.313	Linear and Non-linear Computation Models	A+
	Econ.	212.301	Econometrics	A+
Undergrad. Senior	Stat.	326.411	Bayesian Statistics and Lab.	A+
		326.414	Nonparametric Statistics and Lab.	A
		M1399.000100	Computational Statistics	A+
		M0000.000500	Stochastic Processes	B+
	Math	881.424	Applications of Partial Differential Equations (ENG)	A+
	CS	M2177.004300	Introduction to Deep Learning (ENG)	A
Graduate	Stat.	326.631A	Seminar in Recent Development of Applied Statistics	A+
	Math	3341.505	Differentiable Manifolds	A
	CS	4190.666	Machine Learning (ENG)	A+



1. Refer to the application guidelines of each department.

NOT required < optional < strongly recommended = required

GRE



1. Refer to the application guidelines of each department.
2. The cost for ETS to send an official GRE score to one school is \$35.

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TOEFL



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 - Each university has its own unique automated program for name matching, with varying performance levels. Some are excellent, while others are subpar.

TOEFL - Cont'd



1. My iBT TOEFL Score: R30+L30+S17+W24=101



Application Fees



1. In addition to paying fees to ETS, you also need to pay application fees to each school.

15		5
14		0
13		5
12		55
11		
10		55
9		0055
8		05

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2. Application fees range from \$80 to \$155 for each school.

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Take-Home Messages



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7. Adhere to the rules #1 and #6.

Please visit <https://joonhyuk.com> for more information.



Contact: [joonhyukjung \(at\) uchicago.edu](mailto:joonhyukjung@uchicago.edu)