548 Riverside Drive, 6A
New York, NY – 10027

January 31, 2023

National Bureau of Economic Research
1050 Massachusetts Avenue
Cambridge, MA – 02138

Dear Professor Bryan, Professor Ganguli and Professor Myers,

I am writing to apply for the NBER Innovation Research Boot Camp 2023. I am a 4th year graduate student at the department of economics at Columbia University. Prior to Columbia, I finished my Masters in Economics from Delhi School of Economics and worked at NYU Abu Dhabi in the capacity of an instructor and pre-doctoral researcher in economics. I am an applied microeconomist currently working at the intersection of development, education and network economics. Within my work, I explore how historical endowments, culture and networks influence human capital formation and thereby impact economic growth, idea generation and development. Given the wide applicability of the research questions I am interested in, I often borrow tools and findings from behavioral economics, economic history and political economy.

Within one of my research projects, I am exploring how social connections between academic, entrepreneurial and political elites in Medieval Europe led to technical progress. Further, how this resulted in economic growth and the subsequent escape from Malthusian trap for several medieval political economies. I am applying to the bootcamp to obtain a rigorous exposure to frontier research in economics of innovation. I believe this will crucially guide my exploration in the project and allow me to benchmark my findings to inform several other open questions within the field. The bootcamp would also provide an excellent opportunity to interact with the experts and refine my other research ideas. The connections made during the bootcamp with faculty members and other like-minded graduate students can result in fruitful future research collaborations.

I am attaching a copy of my CV, an unofficial transcript and a summary of my research for your perusal. You should additionally receive a short confidential letter of recommendation from Professor Evan Sadler. Please feel free to reach out in case you require any further information or have any questions.

I look forward to a positive response.

Kind regards,
Palaash Bhargava

Department of Economics,
Columbia University

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Phone: +1 332 600 3253
Website: https://sites.google.com/view/palaashbhargava/

Palaash Bhargava

Columbia University
Department of Economics
New York City
New York, United States 10027

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Phone no.: (+1) 332 600 3253
Website: https://sites.google.com/view/palaashbhargava

Education

Ph.D. Economics, Columbia University. 2019 – present

M.A. Economics, Delhi School of Economics. 2014 – 2016

Percentage: 77.60 % (*1164/1500*). Rank: 2nd out of 220+ students in the batch

B.A. (Hons) Economics, Kirori Mal College, University of Delhi. 2011 – 2014

Percentage: 82.04 % (*2051/2500*). Rank: 2nd out of 110+ students in the batch

Research

Publications

A Cross-verified Database of Notable People (3500 BC - 2018 AD), Nature Sci Data, June 9; 9(1):290 *(with Morgane Laouenan, Olivier Gergaud, Jean-Benoît Eyméoud, Guillaume Plique and Etienne Wasmer)*

Coverage: DailyMail UK, NY Post, Metro UK, +135 others

Working Papers

Homophily and Transmission of Behavioral Traits in Social Networks *(with Daniel Chen, Matthias Sutter and Camille Terrier)*

Work in Progress

Grandma, sing me a climatic lullaby? - Historical origins of climatic preferences *(with César Barilla)*

Credit Consequences of College Attendance *(with Sandra Black, Jeff Denning, Robert Fairlie and Oded Gurantz)*

Historical Superstars and City Growth *(with Morgane Laouenan, Olivier Gergaud, Jean-Benoît Eyméoud and Etienne Wasmer)*

Evolution of elite social networks

Percolation of Natural Disaster related Credit Shocks through Family Networks

Omniscient Teachers: Revealing Classroom social networks for better student outcomes *(with Tarang Tripathi)*

Fellowships, Scholarships and Awards

Winner, Vickrey Award for the best 3rd year paper, Columbia University 2022
PER Summer Research Fellowship, Columbia University 2020, 2021, 2022
Runners up, Wueller Teaching Award for PhD courses, Columbia University 2021
Runners up, Harriss Award for the best 2nd year paper, Columbia University 2021
Dean's Fellowship, Columbia University 2019 – 2024
PER Economics Department Fellowship, Columbia University 2019 – 2024
EXIM Bank Scholarship, Delhi School of Economics 2015 – 2016
Sri Bodhiswar Rai Scholarship, Delhi School of Economics 2014 – 2015
Runners up, Budding Economist, South Asian Economics' Students' Meet 2013

Employment

Assistant Instructor of Economics, New York University Abu Dhabi 2017 – 2019

Assistant Instructor of Mathematics, New York University Shanghai 2018
Analyst, Capital Solutions Group, Investment Banking Division, Nomura Services Pvt. Ltd. 2016 – 2017
Research Assistant *for Professor Sandra Black, Columbia University* 2022 – present
Research Assistant *for Professor Evan Sadler, Columbia University* 2020 – 2022
Research Assistant *for Professor Etienne Wasmer, NYU Abu Dhabi* 2018

Other publications

Afghan War, Foreign Aid and Dutch Disease, *Harvard Economics Review (with Aniruddha Ghosh)*

Neural Network Forecasting for Inflation in India (2012 – 2017) *(with Aniruddha Ghosh)*

Project Enable (Phase 1): A Detailed Research Report based on the Right to Education Bill implemented by the Government of India, suggesting policy changes and improvements through the means of involving students in the process of implementation.

Teaching Experience

Economic Growth and Development, Instructor (Undergraduate level), School of Professional Studies, Columbia University 2022

PhD Math Camp Instructor, Department of Economics, Columbia University 2020, 2021

Teaching Assistant (Graduate level), Department of Economics, Columbia University 2020 – 2021
Math Methods, Fall 2020 *(for Professor Jushan Bai)*

Recitation and Lab Instructor, NYU Abu Dhabi 2017 – 2019
Markets, Spring 2019 *(for Professor Andrzej Baranski)*
5000 Years of Notable lives, Fall 2018 *(for Professor Etienne Wasmer)*
Economic Dynamics, Fall 2018 *(for Professor Thomas Sargent)*
Intermediate Micro-Economics, Fall 2017, Spring 2018 *(for Professors Hervé Crès & Maximilian Mihm)*
Calculus with Applications in Economics, Fall 2017, Spring 2018, Summer 2018, Fall 2018, Spring 2019, Summer 2019

Recitation Instructor, NYU Shanghai 2018
Integral Calculus, January 2018 *(for Professor Hisham Sati)*

Conferences, Seminars and Summer Schools

Network Science in Management, IIM Ahmedabad 2022
Young Scholars Matchmaking Workshop, CEPR - PEDL and NYU Abu Dhabi 2022
Regional and Urban Economics Workshop - "Urban Economics and History", Paris School of Economics 2020
Winter Institute of Statistical Genetics, NYU Abu Dhabi 2019
Development Graduate Summer School, Paris School of Economics 2018
International Symposium in Experimental Economics, NYU Abu Dhabi 2018
The Frontiers of Network Science, NYU Abu Dhabi 2018
At the forefront of Public Economic Theory, NYU Abu Dhabi 2017
10th South Asian Economics' Students' Meet, Lahore University of Management Sciences 2013

Software

Python, STATA, MATLAB, Mathematica, LaTeX, SQL

Languages known

English (Fluent), Hindi (Native), Oriya (Fluent), French (Beginner)

Interests

Sculpting *(Portfolio can be seen at www.behance.net/palaashb)*, Swimming, Badminton, Squash, Bouldering, Debating & Travelling

Last updated: December 12, 2022

Student Services Online

Grades And Registration Status

Palaash Bhargava

Identifiers		Spring 2023 Registration	
Email:	pb2794@columbia.edu	Standing:	GRADUATE FOURTH YEAR
UNI:	pb2794	School:	GRADUATE SCHOOL OF ARTS AND SCIENCES
PID:	C003737492	Affiliation:	ECONOMICS

This document does not constitute an official transcript. The information for Barnard and Teachers College students is incomplete on this site. The data on this page was last updated on **Feb 2 2023** at **03:37AM**.

ACADEMIC SUMMARY

GRADUATE SCHOOL OF ARTS AND SCIENCES

Completed Columbia Points	**73.00**
Transfer Points	**None**
Cumulative GPA	**4.0742**
Columbia Residence Units	**6.00**
Transfer Residence Units	**None**

COLUMBIA COURSES AND GRADES

Spring 2023 - GRADUATE SCHOOL OF ARTS AND SCIENCES

Call#	Course	Section	Title	Points	Grade Value	Grade
12616	ECON 8420 GR	001	COLLOQUIUM IN DEVELOPMENT	2.00		
12542	ECON 8714 GR	001	APPLIED MICROECON RES MET	2.00		
11791	EXRS 0001 GR	001	EXTENDED RESIDENCE F/T	0.00		
Completed Columbia Points				**0.00**		
Completed Residence Units					**0.00**	
Term GPA					**---**	
Enrollment Status					Full-Time	

Fall 2022 - GRADUATE SCHOOL OF ARTS AND SCIENCES

Call#	Course	Section	Title	Points	Grade Value	Grade
11932	ECON 8420 GR	001	COLLOQUIUM IN DEVELOPMENT	2.00		P

11937	ECON 8714 GR	001	APPL MICROECON METHODS CO	2.00		P
13367	EXRS 0001 GR	001	EXTENDED RESIDENCE F/T	0.00		
Completed Columbia Points				**4.00**		
Completed Residence Units					**0.00**	
Term GPA					---	
Enrollment Status					Full-Time	

Spring 2022 - GRADUATE SCHOOL OF ARTS AND SCIENCES

Call#	Course	Section	Title	Points	Grade Value	Grade
14685	ECON 8420 GR	001	COLLOQUIUM IN DEVELOPMENT	2.00		P
14690	ECON 8714 GR	001	APPLIED MICROECON RES MET	2.00		P
11214	RESI 0001 GR	001	1 RESIDENCE UNIT MORNINGS	0.00		
Completed Columbia Points				**4.00**		
Completed Residence Units					**1.00**	
Term GPA					---	
Enrollment Status					Full-Time	

Fall 2021 - GRADUATE SCHOOL OF ARTS AND SCIENCES

Call#	Course	Section	Title	Points	Grade Value	Grade
10944	ECON 8420 GR	001	COLLOQUIUM IN DEVELOPMENT	2.00		P
10964	ECON 8714 GR	001	APPL MICROECON METHODS CO	2.00		P
10004	RESI 0001 GR	001	1 RESIDENCE UNIT MORNINGS	0.00		
Completed Columbia Points				**4.00**		
Completed Residence Units					**1.00**	
Term GPA					---	
Enrollment Status					Full-Time	

Spring 2021 - GRADUATE SCHOOL OF ARTS AND SCIENCES

Call#	Course	Section	Title	Points	Grade Value	Grade
11814	ECON 6244 GR	001	Networks in Economic Theo	3.00	4.00	A
11912	ECON 6414 GR	001	MICRO-ECONOMETRICS	3.00	4.00	A
11914	ECON 6451 GR	001	THE ECONOMICS OF LABOR I	3.00	4.00	A
11824	ECON 8420 GR	001	COLLOQUIUM IN DEVELOPMENT	2.00		P
11916	ECON 8714 GR	001	APPLIED MICROECON RES MET	2.00	4.00	A
10779	RESI 0001 GR	001	1 RESIDENCE UNIT MORNINGS	0.00		
Completed Columbia Points				**13.00**		
Completed Residence Units					**1.00**	

Term GPA	**4.0000**
Enrollment Status	Full-Time

Fall 2020 - GRADUATE SCHOOL OF ARTS AND SCIENCES

Call#	Course	Section	Title	Points	Grade Value	Grade
10751	ECON 6253 GR	001	INDUSTRIAL ORGANIZATION I	3.00	4.00	A
10753	ECON 6307 GR	001	PUB ECONOMICS AND DEVELOP	3.00	3.67	A-
11914	ECON 6427 GR	001	TOPICS IN ECONOMETRICS I	3.00	4.00	A
15792	ECON 6493 GR	001	BEHAVIORAL ECONOMICS	4.00	4.00	A
10763	ECON 8420 GR	001	COLLOQUIUM IN DEVELOPMENT	2.00		P
10768	ECON 8714 GR	001	APPL MICROECON METHODS CO	2.00		P
10003	RESI 0001 GR	001	1 RESIDENCE UNIT MORNINGS	0.00		
Completed Columbia Points				**17.00**		
Completed Residence Units					**1.00**	
Term GPA					**3.9238**	
Enrollment Status					Full-Time	

Spring 2020 - GRADUATE SCHOOL OF ARTS AND SCIENCES

Call#	Course	Section	Title	Points	Grade Value	Grade
34674	ECON 6206 GR	001	MICROECONOMIC ANALYSIS II	0.00		
34676	ECON 6208 GR	001	MACROECONOMIC ANALYSIS II	0.00		
14122	ECON 6212 GR	001	MICROECONOMIC ANALYSIS II	4.00		P
14123	ECON 6216 GR	001	MACROECONOMIC ANALYSIS II	4.00		P
34677	ECON 6406 GR	001	INTRO TO ECONOMETRICS II-	0.00		
14172	ECON 6412 GR	001	INTRODUCTN TO ECONOMETRIC	4.00		P
34678	ECON 6915 GR	001	PERSPECTIVES ON ECON STUD	0.00		P
14182	ECON 6930 GR	001	PERSPECTVS ON ECONOMIC	3.00		P
99991	RESI 0001 GR	001	1 RESIDENCE UNIT MORNINGS	0.00		
Completed Columbia Points				**15.00**		
Completed Residence Units					**1.00**	
Term GPA					---	
Enrollment Status					Full-Time	

Fall 2019 - GRADUATE SCHOOL OF ARTS AND SCIENCES

Call#	Course	Section	Title	Points	Grade Value	Grade
17838	ECON 6209 GR	001	MICROECONOMIC ANALYSIS I-	0.00		
47442	ECON 6211 GR	001	MICROECONOMIC ANALYSIS I	4.00	4.33	A+

17839	ECON 6213 GR	001	MACROECONOMIC ANALYSIS I-	0.00		
47443	ECON 6215 GR	001	MACROECONOMIC ANALYSIS I	4.00	4.33	A+
17840	ECON 6408 GR	001	INTRODUCTION TO ECONOMETR	0.00		
47448	ECON 6410 GR	001	MATH METHODS FOR ECONOMIS	4.00	4.33	A+
47449	ECON 6411 GR	001	INTRODUCTION TO ECONOMETR	4.00	4.00	A
99991	RESI 0001 UN	001	1 RESIDENCE UNIT MORNINGS	0.00		
Completed Columbia Points				**16.00**		
Completed Residence Units					**1.00**	
Term GPA					**4.2475**	
Enrollment Status					Full-Time	

TRANSFER COURSES

GRADUATE SCHOOL OF ARTS AND SCIENCES

No Transfer Courses on Record

Notes:

- About Columbia Points: The points in light gray are not added into Completed Columbia Points. These points have only a billing purpose or represent classes that are not completed yet.
- About GPA: Not all Columbia schools display the GPA on this page.
  GPA, Grade Point Average, is calculated as a weighted average where the weights are values assigned to each grade, see Grade Value column. The formula used: GPA = sum(Grade Value * Points)/sum(Points). The classes for which you do not see a grade value are not calculated into GPA. Depending on the grading system of the school, the grade values can vary from [0-4.00], [0-4.33] or [0-10.00].
  The sign --- indicates that there are no grades to calculate the GPA.

Summary of research

Factors that led to historical economic growth and events such as the industrial evolution have been a key area of analysis for economic historians. Why did industrial revolution come to Britain first instead of France? Why did Italy and Netherlands see higher levels of growth in the 14th and 15th centuries which eventually tapered down? Answers to these questions are embedded in discussions about the relative importance of human vs physical capital and the role of institutions (Mokyr [2016], Mokyr [2009], Allen [2009], Acemoglu [2009]). While one set of scholars attribute this growth to access to physical capital such as coal, another set of scholars attribute it to the existence of conducive institutions and emergence of an idea generation class. Mokyr [2016] introduces the idea of a "culture of growth". Economies need to act as petri-dishes where the political elite create conducive institutions for ideas to grow and practitioners implement these ideas by learning from the academic elite. That is, one potential mechanism which can explain a broad array of historical facts related to economic growth in medieval Europe is the existence of soft connections between the intellectual, political and entrepreneurial elite.

This motivates my first area of research. In a recent paper published in Nature (Scientific Data), I along with my co-authors introduce a cross-verified a meta-database of over 2.2 million notable elites from the last 5 millennia. Building on seminal works by Schich et. al [2014] and Yu et. al [2016], we use six additional language editions of Wikipedia as well as Wikidata as complementary sources of information about notable individuals to reduce the Anglo-Saxon bias present in current datasets. We obtain information about their demographic characteristics, place and death of birth / death, citizenship, and occupation. We show that aggregate rise in occupations of specific kinds within a country are highly correlated with the onset of significant historical events (for e.g. the onset of the Dutch Renaissance is preceded by a surge in individuals associated to cultural arts).

Moving forward, we are compiling information about the professional and personal social networks of these academic, political and entrepreneurial elites. We employ a battery of cross-verification techniques, textual and semantic analyses to obtain information about these individuals from the universe of Wikipedia and Wikidata. We construct measures of social networks by directly eliciting information on family and social ties or by indirectly constructing potential links using area of residence, work organizations and academic affiliations. Our aim is to create the most comprehensive database employable for understanding the role of culture, gender and creative classes in fields of economic growth, urban economics and cultural development. We plan to utilize this dataset to test several hypotheses put forth in Mokyr [2016]. For example, we aim to test Cardwell's law (technical progress and institutional support should go hand in hand) by exploring the evolution of connections between political and scientific elite. By looking at inter-generational, across country and across occupations connections or the frequency of movement amongst intelligentsia, we aim to test the role of tradition, intergenerational rigidities, within generation transmission of ideas (such as Republic of letters) and academic-entrepreneurial networks on historical economic growth in Medieval Europe. To do so, we plan to rely on either quasi-random shocks such as unexpected death of family members or a more structural approach as proposed by Fogli and Veldkamp [2021].

An exposure at the NBER bootcamp to the frontiers of innovation research will help me ground these questions better within the literature, explore several other datasets of interest to complement this inquiry and augment the analyses with more robust theoretical and econometric techniques.

My other research projects sit at the intersection of education, networks, climate and cultural history. For e.g., in a project related to ancestral history, I test if climatic shocks faced by ethnic ancestors of an individual result in pro-environmental preferences today and if evidence of socialization can be found in corresponding ethnic folklore. I also aim to use datasets on ethnic folklore to study the impact of messages of curiosity on scientific output at an ethnicity level. In education, I am working on several projects which look at the impact of federal grants on parent credit outcomes, the role of friendship networks in behavioral traits development amongst high school students and the role of network information in reducing issues of isolation in Indian middle schools. Within climate studies, I study how financial shocks emanating from natural disasters percolate through family networks and impact wealth distributions through changes in access to credit and altered human capital decisions. Within a project related to city growth, I am exploring what kind of occupations were required historically for cities to grow and if this growth was determined by the existence of a few global superstars or rather a mass of local superstars. These seemingly disparate topics have an underlying theme of the role of social networks in human capital formation, idea generation and economic growth. I believe talking to like-minded graduate students and experts in the field during the bootcamp would help me further my research interests and better use my skills to explore open questions in the field of innovation.

References:

Acemoglu, D., Johnson, S., Robinson, J. A., & Yared, P. (2009). Reevaluating the modernization hypothesis. Journal of monetary economics, 56(8), 1043-1058.
Allen, R. C. (2009). The British industrial revolution in global perspective. Cambridge University Press.
Fogli, A., & Veldkamp, L. (2021). Germs, social networks, and growth. The Review of Economic Studies, 88(3), 1074-1100.
Mokyr, J. (2016). A culture of growth. In A Culture of Growth. Princeton University Press.
Mokyr, J. (2009). The enlightened economy: an economic history of Britain, 1700-1850 (pp. 83-84). New Haven, CT: Yale University Press.
Laouenan, M., Bhargava, P., Eyméoud, J. B., Gergaud, O., Plique, G., & Wasmer, E. (2022). A cross-verified database of notable people, 3500BC-2018AD. Scientific Data, 9(1), 290.
Schich, M., Song, C., Ahn, Y. Y., Mirsky, A., Martino, M., Barabási, A. L., & Helbing, D. (2014). A network framework of cultural history. Science, 345(6196), 558-562.
Yu, A. Z., Ronen, S., Hu, K., Lu, T., & Hidalgo, C. A. (2016). Pantheon 1.0, a manually verified dataset of globally famous biographies. Scientific data, 3(1), 1-16.

To whom it may concern,

I am most pleased to recommend Palaash Bhargava for the NBER Innovation Bootcamp. I've known Palaash for the last four years, both through coursework and more recently as a research assistant. Palaash's research interests center on how social networks shape information flows, economic development, and culture. Palaash benefits from an unusually broad skill set, and his energy and enthusiasm for research are inspiring. He has my *highest possible* recommendation.

I met Palaash in the first year of his PhD coursework as I teach the second quarter of microeconomic theory. The material in this course is some of the most challenging that students encounter in the first year, covering general equilibrium, monotone comparative statics, social choice theory, and some game theory. Although his interests are more applied, his work was easily at the level of students who plan to do research in economic theory. I subsequently saw Palaash again in my second year PhD course on networks in economic theory. Palaash excelled here as well, and I am confident he has the tools required to pursue his research agenda. Beyond his coursework, Palaash began working as an RA for me the summer after his first year. He has worked on a range of projects for me, utilizing a wide variety of skill sets, from formal proof-writing to coding. In his own research, he has show a remarkable level of independence at an early stage, and (as should be clear from Palaash's own research statement) a rare ability to juggle multiple projects at once.

It should be clear I think very highly of Palaash's research ability, and I believe he would be a very positive presence at the NBER Innovation Research Boot Camp. Please do not hesitate to contact me with any further questions.

Sincerely,

-Evan Sadler
Assistant Professor of Economics, Columbia University