Brian Park Application Summary Document

Applicant Name: Brian Park

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Phone: 646-784-1574

Address: 3195 S. Sepulveda Blvd. APT 303, Los Angeles, CA 90034.

School: University of California, Los Angeles (UCLA)

Area of Interest: Finance

Year of entry into the PhD program: 2022

Expected year of completion: 2027

Faculty member supplying a letter of recommendation letter: Prof. Barney Hartman-Glaser

BRIAN PARK

Email: jwbpark@ucla.edu Phone: +1-646-784-1574 Address: 3195 S. Sepulveda Blvd. APT303, Los Angeles, CA. 90034.

EDUCATION

University of California, Los Angeles (UCLA) **Los Angeles, CA**
- Ph.D. in Management 2022~Present
- Finance Department, Anderson School of Management

Massachusetts Institute of Technology (MIT) **Cambridge, MA**
- M.S. in Electrical Engineering & Computer Science 2007~2010
- Operations Management Group, Sloan School of Management (Thesis: Risk sensitive capacity control in network revenue management)

Korea Advanced Institute of Science and Technology (KAIST) **Daejeon, South Korea**
- B.S., *Summa Cum Laude* in Electrical Engineering & Computer Science; 2002~2007

WORKING PAPERS

- "Degrees of credit: Higher learning, lower rates" with Mark Jansen, Ryan Voges, 2025.
- "Networks in Private Equity and Venture Capital Market: Heterogeneous Investors Implications" with Anand Systla, 2025.
- "Heterogenous fund managers: Belief ", 2025.
- "Options on volatility managed portfolio", 2022.

PUBLISHED PAPERS

- "Minimum entropy density method for the time series analysis," *Physica A*, vol. 388, pp.137-144, 2009.
- "Complexity analysis of the stock market," *Physica A*, vol. 379, pp. 179-187, 2007.
- "Variable optical mode generator in a multimode waveguide," *IEEE Photonics Technology Letters*, vol. 18, pp. 2084-2086, 2006.
- "Periodically aligned liquid crystal: potential application for projection displays," *Molecular Crystals and Liquid Crystals*, vol. 451, pp. 1-19, 2006.

PRESENTATIONS

Seminar Talks
- Options on volatility managed portfolio, UCLA 2023, 2024.
- Volatility target option on multi-asset risk parity index, Shihan Bank, 2019,2020.
- Risk Premia Strategy: Factor-based mean reversion strategy, Bank of America-Seoul, 2019.
- Risk Premia Strategy: Volatility term structure and statistical arbitrage strategies, Mirae Asset Daewoo Securities, 2017, 2018.
- Factor based investment in US equities and credit market, Bank of Korea, 2016.
- Algorithmic Trading, December & Co., 2015.
- Algorithmic Trading, NCSoft Inc., 2015
- Equity market mictrostructures in US, Korea and Japan, Korea Exchange(KRX), 2012.

Conference Papers
- "Entropy density and complexity analysis of the Korean stock market," 9th Joint Conference on Information Sciences, Kaohsiung, Taiwan, October 2006.
- "Complexity analysis of the stock market," 4th International Conference on Nonlinear Science, Pohang, Korea, July 2006.
- "Variable optical mode generator," 11th Optoelectronics and Communications Conference, Kaohsuing, Taiwan, July 2006.
- "Variable optical mode generator," 13th Conference on Optoelectronics and Optical Communications, F1B1, Chang-nyung, Kyung-nam, May 2006.
- "Periodically aligned liquid crystal: potential application for projection displays," Conference "Optics of Liquid Crystals -2005", Clearwater-Tampa, Florida, October 2005.
- "Potential application of periodically aligned liquid crystal cell for projection displays", CLEO/QELS, Baltimore, 2005, Talk JThE12.
- "Periodically aligned liquid crystal: potential application for projection displays," Optics in the Southeast 2003.

Magazine
- Generator Launches Selected Mode into Multimode Waveguide, Photonics Spectra, December, 2006.

HONORS AND AWARDS

- Mark Grinblatt Exceptional Finance Research Award - UCLA
- Full-tuition graduate scholarship - Kwanjeong Educational Foundation
- Full-tuition scholarship – KAIST
- Top-of-class scholarship – KAIST
- Best undergraduate research award – KAIST
- Lucent Global Science Scholar Award – Lucent Technology

TEACHING EXPERIENCE

University of California, Los Angeles (UCLA) - *Teaching Assistant* **Los Angeles, CA**
- Derivatives (Winter 2025)
- Investment Management (Spring 2024)
- Private Equity and Venture Capital (Fall 2023, Spring 2024)

Massachusetts Institute of Technology (MIT) - *Teaching Assistant* **Cambridge, MA**

- Introduction to Probability (6.041) Spring 2010, Spring 2009
- Mathematics for Computer Science (6.042) Fall 2009
- Electromagnetics (6.630) Fall 2008

PROFESSIONAL EXPERIENCE

Barclays Capital – ETF Trading
Bank of America Merrill Lynch – QIS and CRB Trading
UBS, Investment Bank – Derivatives and Algorithmic Trading

SERVICES

Association of Asian American Investment Managers **New York, NY**
Steering committee member Jan. 2011 ~ present
Korean Quant Society **New York, NY**
Cofounder Jan. 2011 ~ present

OTHER INFORMATION

Status & Certification
- U.S. Citizen.
- Financial Risk Manager(FRM), FINRA Series 7, 63, 55, and 3.

Computer Skills
- Languages: Python, C/C++, kdb+, SQL(MS, Oracle), JAVA.
- Statistical Packages: R, Stata.
- Data Analysis: Preqin, Pitchbook, PrivCo, CRSP, OptionsMetric, Bloomberg, Reuters, IBES, Barra.

Dear NBER Entrepreneurship Research Boot Camp Committee,

I am writing to express my keen interest in participating in the upcoming Entrepreneurship Research Boot Camp in Cambridge. I first learned about this esteemed event through the NBER website, and I am particularly drawn to its focus on advancing knowledge in entrepreneurial finance. Given my academic background and professional experience, I believe this program offers a unique opportunity to refine my research and contribute meaningfully to the field.

I am currently a third-year Finance Ph.D. student at UCLA Anderson, following over 13 years in the finance industry. My time in the industry exposed me to the persistent gap between academic research and real-world financial practices, particularly in entrepreneurial finance. This boot camp presents an invaluable opportunity to bridge that gap, allowing me to engage with cutting-edge research while gaining deeper insights into the institutional frameworks and market dynamics that shape entrepreneurial finance.

My current research focuses on networks in the private equity and venture capital markets, specifically investigating heterogeneous investor behaviors. I analyze variations in investment strategies among asset allocators (LPs) by measuring their investment concentration through the Gini coefficient. My findings indicate that LPs with higher Gini coefficients, reflecting more concentrated investments, exhibit distinct risk preferences and return patterns compared to their diversified counterparts. To further explore these dynamics, I construct a network model that maps LP-GP relationships, examining market concentration and sparsity. By integrating network theory into private equity and venture capital research, my study offers novel insights into how investment structures influence market behavior.

Additionally, I am examining the relationship between education and access to consumer credit, particularly within the subprime automotive finance segment. Utilizing a proprietary dataset from a national auto lender comprising over one million loan applications and performance outcomes, I investigate how education influences credit accessibility beyond traditional labor market pathways. My research explores the causal impact of education on interest rates and delinquency rates, as well as the indirect returns to education reflected in credit terms. By demonstrating how human capital investments affect financial well-being, my findings have significant implications for policymakers and lenders seeking to enhance credit accessibility while maintaining prudent lending standards.

I am particularly inspired by the potential for groundbreaking advancements in entrepreneurial finance and believe that attending this boot camp will greatly enrich my research perspective. The opportunity to engage with leading scholars, including Professors Robinson, Hochberg, Guzman, and Lerner, whose work I deeply admire, is especially exciting. I am confident that the insights gained through this program will enhance my academic trajectory and contribute significantly to my research endeavors.

Thank you for your time and consideration. I look forward to the possibility of engaging with this dynamic community of scholars in Cambridge.

Best regards,

Brian Park

UCLA Anderson School of Management

Barney Hartman-Glaser
Associate Professor of Finance

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February 14, 2025

Dear Selection Committee,

I am pleased to write in support of Brian Park's application to the NBER Summer Entrepreneurship Research Boot Camp. Brian is a third-year Ph.D. student in Finance at UCLA Anderson, and I had the opportunity to work with him as his instructor for Corporate Finance Theory. He is a diligent and thoughtful student with a strong analytical foundation, making him a good candidate for this program.

Brian brings both academic and industry experience to his research. Before starting his Ph.D., he spent over a decade in finance, trading a range of products at major investment banks. This experience provides him with a practical perspective on financial markets that complements his academic work. In my course, he performed well, earning an A+ and engaging actively with the material.

Brian is interested in entrepreneurial finance and hopes to refine his ability to identify meaningful research questions in the field. While still developing his research intuition, he is methodical and persistent in his approach. Exposure to the leading scholars at the NBER Boot Camp will help him further sharpen his research skills and understanding of the field.

Brian is still at a relatively early stage in his reserch journey and thus has indicated a number of directions he might be interested in. One project he has begun working on that might be particularly related to entrepreneurial finance concerns analyzing the network structure of the LP/GP connections in venture capital and private equity.

Brian is motivated, open to feedback, and eager to learn. I believe he would benefit from and contribute to the collaborative environment of the NBER Boot Camp. I recommend him for this opportunity and would be happy to provide any additional information if needed.

Sincerely,

Barney Hartman-Glaser

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