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February 18, 2026

To
NBER Entrepreneurship Research Boot Camp Selection Committee,
National Bureau of Economic Research
1050 *Massachusetts Avenue*
Cambridge, MA 02138

Re: Application to the NBER Entrepreneurship Research Boot Camp (Summer 2026)

Dear Members of the Selection Committee,

I am writing to apply to the 2026 NBER Entrepreneurship Research Boot Camp. I am a PhD candidate in Finance at the University of Southern California Marshall School of Business, working on theory and empirics at the intersection of entrepreneurship, organizational design, and contracting. I entered the program in 2023.

My work studies how entrepreneurs and investors structure experimentation and governance when projects have interdependent components, with implications for startup pivoting and scaling, founding-team and project boundaries, and the design of financing and contractual rules when verification is costly. I am eager to participate in the research boot camp because the Entrepreneurship Working Group's focus on entrepreneurial finance, firm dynamics, management, policy, and development aligns closely with the questions my research targets.

My application materials include my CV and a one-page research statement. My references are Prof. Jason Donaldson and Prof. Giorgia Piacentino.

Thank you for your consideration. I would be grateful for the opportunity to attend and contribute to the Boot Camp.

Your Sincerly,

Zichen Zhao

Zichen Zhao

CONTACT INFORMATION

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The University of Southern California
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Los Angeles, CA 90089

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EDUCATION

University of Southern California

Ph.D. in Finance, 2023 -

Ph.D. Courses: First-Year Macro, Micro and Metrics; Second-year Macro, Corporate Finance and Asset Pricing.

University of Chicago

MA in Economics, 2021
Visiting Student, 2016

Ph.D. Courses: Price Theory; Empirical Analysis; Topics in Microeconomic Theory; Topics in Labor Economics; Repeated Games; Corporate Finance.

Nankai University

Bachelor of Economics, 2018

RESEARCH EXPERIENCE

Booth School of Business, University of Chicago

Research Professional at the Fama-Miller Center 2021 - 2023

PIs: Professors Emanuele Colonnelli, Elisabeth Kempf, Stefan Nagel, Anthony Lee Zhang and Eric Zwick on various projects on consumer credit markets, financial intermediation and household finance.

RESEARCH PROJECTS

Contract Loopholes, 2026. with Jason Donaldson and Giorgia Piacentino
Models loopholes as a consequence of clause-by-clause verification in complex rules and characterizes when selectively bundling interdependent contingencies improves enforcement and governance.

Modular Project Organization, 2025.
Develops a theory of how innovators optimally partition interdependent projects into modules, trading off flexibility/option value against coordination to capture complementarities.

Bargaining with Heterogeneous Beliefs, 2023.
A reputation bargaining model with uncertain, heterogeneous initial beliefs delivers a unique phased war-of-attrition equilibrium, where learning can either reduce inefficiency or prolong delay.

REFEREE WORK

Journal of Corporate Finance

REFERENCES

Jason Roderick Donaldson
Associate Professor of Finance
USC Marshall and CEPR
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Giorgia Piacentino
Associate Professor of Finance
USC Marshall, NBER and CEPR
Email: giorgiapiacentino@gmail.com

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Research Statement for the 2026 NBER Entrepreneurship Research Boot Camp

My research agenda develops a unified view of *entrepreneurship under interdependence*: when opportunities, tasks, or technologies are complements, entrepreneurs must decide what to *bundle and coordinate* versus what to *separate and experiment on*. I study how this boundary choice—inside young firms and across investor/contract relationships—shapes (i) startup experimentation, pivoting, and scaling, (ii) incentives and risk-taking under limited liability and financing constraints, and (iii) governance when verification and enforcement are imperfect. A common object in my work is a modular architecture: a partition of a complex venture into semi-autonomous units linked through interfaces. This lens connects naturally to core entrepreneurship topics such as entrepreneurial finance, firm dynamics and growth and their interactions with firms' organic organizations.

My working paper formalizes how an early-stage firm organize a risky, interdependent portfolio of initiatives. The model clarifies a central entrepreneurship trade-off between *option value* (flexibility to continue, pivot, or abandon projects as information arrives) and *coordination value* (capturing complementarities that require joint execution to scale). The core implication is that optimal boundaries track dependence: weaker or offsetting links favor modular experimentation; strong positive dependence favors bundling and coordinated execution. This provides disciplined predictions for settings emphasized in entrepreneurship—for example, how investor oversight, shared infrastructure, or common shocks can push ventures toward integration, while communication technologies or organizational practices can enable modularization and faster experimentation.

My current proposal extends the same architecture logic to contracting and rules that govern entrepreneurship. In entrepreneurial finance and regulation, complexity is often handled clause-by-clause because verifying joint contingencies is costly, but modular enforcement can create *loopholes* when clauses interact. I model this as a constraint on verifying joint states and characterize when loopholes arise and how to mitigate them via *selective closure*: jointly testing highly dependent contingencies while keeping low-dependence parts modular. This project speaks to financing terms and covenants, platform and marketplace rules, and policy designs that affect entry, experimentation, and scaling.

The NBER Entrepreneurship Research Boot Camp is an ideal environment to sharpen and stress-test this agenda, as the lecture topics overlap substantially with my current and perspective research focus. I am especially excited to use the lectures and the Summer Institute sessions to refine empirically actionable implications that will help me implement my research agenda with clearer hypotheses, sharper identification strategies, and a concrete plan for data collection and analysis. My goal is to answer when entrepreneurs should separate to learn, when they should integrate to scale, and how financing and institutions should be designed when complexity makes holistic verification infeasible.

February 18, 2026

Dear Brett:

I am writing to recommend **Zichen Zhao**, who is a third-year PhD student at USC, for NBER Entrepreneurship Research Boot Camp 2026. He has my highest recommendation.

I have known Zichen for two years. He took an advanced topics course on contract theory in his first year. I then advised his second-year paper. We are now working on a project together with Giorgia Piacentino.

In his second-year paper, Zichen studies modularity. He builds on a literature that dates back at least to Herbert Simon but that, in my reading, still has relatively few formal economics models (e.g., the 2025 JPE paper by Matouschek, Powell, and Reich says it is taking a first step toward studying how to organize modular production).

Zichen's paper, "Modular Project Organization," studies how a firm can organize a risky production process into modules. He considers modules as sets of random variables, called "projects." Those could be independent units of software/code, teams or divisions of employees, or physical inputs to production. The assumptions he makes are only that there are complementarities within modules but that they can fail independently—the benefit of a big module is the efficient integration of the production process when things go well, the cost is the inefficient integration when they go badly.

Despite the generality of the set-up, Zichen still manages to derive sharp results. He does that in two ways that I would not have managed to do myself. First, he develops a necessary condition for local optimality, which allows him to rule out large and small modules in meaningful cases, even when it is effectively impossible to characterize the optimal modular structure. He then introduces three classes of covariance structures, block diagonal, core-periphery, and Toeplitz (effectively a chain structure), under which he manages to derive general properties of the optimal modular structure. The take-away is that the optimal modular structure tracks the covariance structure of the project, which stronger covariance (in the senses Zichen makes precise) favoring larger modules, a prediction which we think can be tested.

He also shows how the organizational problem is computationally hard and studies how simple algorithms could approximate (or fail to approximate) the optimal structure.

Zichen has also been a hard working and insightful coauthor on our joint work.

I think he is outstanding overall. Please do not hesitate to contact me should you need more information.

Jason