

Ryan Brill

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Education

University of California, Berkeley

Aug 2016 - May 2020

- Double Major in Mathematics and Statistics
- Computer Science Minor
- GPA: 3.8

Experience

RIPS Singapore, National University of Singapore

June 2019 - Aug 2019

- Led a research group in the RIPS Singapore program (Research in Industrial Projects for Students) at the IMS (Institute for Mathematical Sciences) at NUS (National University of Singapore)
- Sponsored by Nvidia, my project was entitled “Exploring a Type-Theoretic Environment for Python”
- Current type-theoretic theorem provers like Coq are robust, but have a steep learning curve and are difficult to use, so Nvidia wanted us to explore creating a type-theoretic theorem proving environment in Python, with emphasis on ease-of-use and ability to link to Nvidia’s ML and AI algorithms
- Learned about type theory, building a theorem prover, and Coq
- Created a prototype Python library
- Wrote a paper which we gave to our sponsor at Nvidia
- Will give a poster presentation at the Joint Math Meetings (JMM) Conference in Denver in January 2020

Berkeley Mathematics Directed Reading Program

Jan 2019 - June 2019

- Read Lawrence Evans’ “An Introduction to Stochastic Differential Equations” with a mathematics PhD candidate who studies PDEs and probability
- Learned about Brownian motion (including proofs of its construction, almost-sure continuity, and nowhere differentiability), the Ito Integral, Ito’s product rule, Ito’s Chain rule, Existence and Uniqueness theorems, its connection to finance, and most interestingly, its connection to PDEs (for instance, certain PDEs involving the Laplacian and the Feynman-Kac Formula have stochastic solutions)
- Found formulas for general linear SDEs before the book presented them
- Wrote a Beamer presentation summarizing the field of SDEs, and gave a presentation to the Berkeley math community

UC Berkeley Neuroeconomics Lab - Research Assistant

Jan 2018 - Present

- Assist Business School professor and psychology Ph.D. candidate with study to understand how the brain computes and represents values that allow an individual to make his economic decisions
- Build and maintain a Pygame program, used in conjunction with a dynamometer, to present participants with incentivized (paid) choice dilemmas and measure their reactions
- Will collect and analyze data to develop quantitative models to predict decision making

Calhat Enterprises - Co-Founder

Aug 2016 - May 2018

- Created “Calhat,” a “street” hat brand marketed to university students with branches at 5 universities: “Calhat” (UC Berkeley), “Cusehat” (Syracuse), “Slughat” (UC Santa Cruz), “Statehat” (San Diego State), and “Wildhat” (Chico State)
- Found and engaged supplier in China through Alibaba to manufacture thousands of hats

- Led guerilla marketing/branding campaign

Atme - Creator

Jan 2018 - June 2018

- Created “Atme”, a social media app inspired by the flaws of Instagram
- Rather than posting about yourself to show off how “cool” and “attractive” you are, you can only make posts directed at someone else, and your profile is comprised of what everyone else has said about you
- Written in Swift, connected to Firebase
- Still under development

Stout Risius Ross, LLC - Summer Intern

June 2018 - Aug 2018

- Worked in the Complex Securities Valuation group of global valuation advisory firm
- Studied theoretical foundations of options pricing, including stochastic calculus, partial differential equations, the derivation of the Black-Scholes equation, and equations for Exotic Options
- Valued the carried interest of a hedge fund invested in a leading ride-share app
- Valued the earnout of an acquisition of one healthcare company by another

Programming

Skills

Python, R, Java, Swift, Excel, Github

Awards

Regents' and Chancellor's Scholarship, UC Berkeley

Aug 2016 - Present

Awarded UC Berkeley's most prestigious scholarship for undergraduates in recognition of academic and personal achievements, such as being valedictorian, captain of varsity tennis, and my commitment to community service.

Outside Interests

Fantasy Football, Sports Betting, Producing Rap Instrumentals, Texas Holdem