

Education

Brown University

DATA SCIENCE, M.Sc.

GPA 4.0/4.0 - Providence, RI

Sep. 2022 - May. 2024

- Computational Probability and Statistics, Deep Learning, Software Security and Exploitation...

Minerva University

COMPUTATIONAL SCIENCES & BUSINESS, B.Sc.

GPA 3.8/4.0(Top 5%) - Worldwide

Sep. 2018 - May. 2022

- (Triple Majors) Data Science and Statistics, Applied Problem Solving, Strategic Finance
- Capital Allocation and Value Creating Growth, Global Enterprise Financial Strategy, Accounting...
- Data structure, Linear optimization, Machine learning and decision making, Bayesian statistics...

Skills

Programming	Python, C, PHP, SQL, R, MatLab
Web	HTML/CSS/JavaScript, React.js, Bootstrap, jQuery, Flask, Django
Tech Stacks	Burp Suite, Kernel, TensorFlow, Docker, *nix, Pandas, Scrappy
Tools	Heroku, MS Office, Tableau, PhotoShop, Git, LaTeX, Jupyter, Unity
Languages	English (Fluent), Mandarin (Native)

Tech experiences

Bank of America

Charlotte, US

(INTERN) CORPORATE AUDIT: DATA AUTOMATION AND TECHNOLOGY

May. 2023 - PRESENT

- Implemented audit testing coverage through streamlining protocols, leading to 25% time savings
- Visualized coverage statistics through Python and Alteryx, delivering analysis to senior directors

Brown Secure Systems Lab

Providence, US

(RESEARCH) PER-PROCESS SYSTEM CALL FILTERING AND KERNEL DEVELOPMENT

Jan. 2023 - PRESENT

- Developed an advanced log-time syscall filtering application using seccomp BPF, resulting in improved system efficiency
- Customized Linux kernel 6.0.8 compilation, integrating arity-based filters for enhanced performance
- Designed versatile syscall handlers for policy-driven binaries, enabling flexibility and streamlined execution

Elle Investments

Remote, US

(INTERN) FULL STACK WEB APPLICATION DEVELOPMENT FOR HIGH-PERFORMANCE TRADING DATA SOLUTION

May. 2022 - Dec. 2022

- Overhauled a low-level persistent storage saving 20% write time, 40% read time, and 45% RAM, increasing overall performance
- Addressed SQL injection vulnerabilities and restructured MVC+OOP stateless deployment framework to strengthen security measures
- Implemented a dynamic HTTP cache that increased concurrency by 1000x, significantly enhancing the overall user experience

The IBM Qiskit Quantum Computing

Remote

(RESEARCH) QUANTUM MACHINE LEARNING LAB EXPERIENCES ON CUTTING EDGE MODELS

July 2021 - Aug. 2021

- Investigated practical applications of Quantum Approximate Optimization Algorithm, optimizing solutions for complex problems
- Conducted in-depth analysis of Quantum Boltzmann Machines, driving advancements in data generation and quantum computing

Correlation between Fama-French factors and business cycles

Remote

(RESEARCH) SECOND-AUTHOR WITH DR. ARNAV SHETH(MIT) ON A PAPER ABOUT CURVE INVERSION TIMING STRATEGY

June 2021 - PRESENT

- Developed a probit-based recession forecasting model, achieving 70% accuracy, which contributed to a 10% annualized return
- Analyzed business cycles through Fama-French factors using ex-ante and ex-post evaluation methods, confirming the model's validity

Finance Projects

Chongqing International Trust

Wuxi, China

(INTERN) ASSET MANAGEMENT ASSISTANT FOR QUANTIFIED FINANCIAL PRODUCT RESEARCH

July. 2021

- Conducted in-depth risk assessments influenced by macroeconomic policies, optimizing investment security
- Evaluated consumer investment strategies through data-driven research, adapting to diverse economic scenarios
- Streamlined analysis and validation of Snowball derivatives employing Monte Carlo simulations for knock-in/out options, enhancing accuracy and efficiency

Addor Capital

Nanjing, China

(INTERN) INVESTMENT ASSISTANT FOR TECH INDUSTRY RESEARCH AND INVESTMENT STRATEGIES

May. 2021 - Jun. 2021

- Conducted, transcribed, and evaluated in-person and virtual interviews, presenting key insights to stakeholders
- Assessed potential fraud risks pre-financial due diligence through comprehensive research, mitigating financial exposure
- Measured and assessed Cyber Range industry performance employing DCF and linear regression methodologies, driving strategic decision-making

ESG fund voting pattern research(published)

Remote

DATA PREPROCESSING AND ANALYSIS WITH ARNAV SHETH AND GITA RAO(MIT SLOAN)

Feb. 2021 - Mar. 2021

- Developed a multi-threaded web crawler for extracting voting records from the SEC EDGAR database, leading to faster data acquisition and reduced processing time
- Implemented a universal data pipeline using regular expressions for accurate filtering and analysis, streamlining the data processing workflow and enhancing output quality