RAY DI FELICE

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DEFI RESEARCHER AND TRADER

Experienced in handling risk-management and product decisions in DeFi and traditional finance. Ability to be self-managed and organize cross-functional teams to build financial services. Commitment to monitoring crypto market for shifting trends and developments to inform decision making. Desire to use knowledge of DeFi risk management to build world-class, innovative risk and data science organization to help protocols and accelerate adoption. Areas of expertise include:

DeFi Mechanism Design | Blockchain Architecture | Macro Markets | Risk Management | Futures | Options | MEV

Simulation | Machine Learning | Statistics | Python | Golang | Solidity | GitHub | SQL | Microsoft Excel

PROFESSIONAL EXPERIENCE

INDEPENDENT WORK

Solo Researcher   2022 - Present
Expanding technical skills, building arbitrage bot, and researching trading strategies.
- Developed understanding of Ethereum Virtual Machine, including Solidity Contract Application Binary Interface (ABI). Able to read on-chain data and encode and decode smart contract calldata.
- Completed smart contract hacking course, learning effective security and coding practices. Utilizing gained knowledge to analyze projects' designs and codebases on deeper level to inform investment and risk decisions.
- Building arbitrage trading bot to deploy on Ethereum-based decentralized exchanges.
- Built knowledge of MEV, possible solutions (auctions), and countermeasures (Salmonella and Kattana).

SIFCHAIN

Cryptoeconomist and Research Engineer, Remote   2021 - 2022
Drove initiatives throughout all stages of product lifecycle for Sifchain's Cosmos-based decentralized exchange services.
- Contributed to margin trading system design, applying understanding of trading markets and end users' needs.
- Designed and ran simulations for testing margin trading system, using Python-based cadCAD package to model discrete timesteps of blockchain. Created user stories and journeys to simulate edge cases and likely scenarios.
- Investigated and found sources of problems with margin trading system, including why many liquidations occurred at once. Utilized understanding of system and liquidity to articulate issues and solutions to CEO and colleagues.
- Presented case for strategic pivot directly to CEO, combining understanding of user needs, competitive landscape, and markets experience to drive CEO toward stronger product-driven roadmap and user focus for long term.
- Collaborated and worked closely with multi-disciplinary team of researchers, product managers, developers, designers, and business development to improve margin product and other features. Explained complex topics and technical trade-offs to team members in straightforward way to maximize understanding.
- Wrote technical documentation for margin trading mechanism to be used by engineers and product managers. Drafted code in Python and Golang on documents for developers to use as foundation for expanding codebase.
- Redesigned AMM liquidity provider share calculations and wrote implementation code in Golang for engineers to use.
- Served as product manager on simulation work, instructing engineer to run experiments and meet sprint deadlines.
- Reviewed Golang code written by engineers to implement various mechanisms designed by research team.
- Detected and isolated sources of errors in user interface following DEX launch and instructed engineering team to fix.
- Read academic papers and DeFi research, sharing ideas about new DeFi primitives and developments with colleagues.
- Created visual map of Sifchain ecosystem to educate stakeholders on product features in approachable manner.
- Served as ambassador for Sifchain at conferences and generated new contacts to gain users and increase partnerships.
- Built trust of Sifchain users by troubleshooting community members' technical issues and concerns on Discord.
- Conducted interviews with prospective employees and evaluated each candidacy, delivering to CEO.

BARCLAYS

Currency Trader, New York, NY   2018 - 2020
Led growth and executed strategic vision for Europe, Middle East, and Africa (EMEA) emerging markets currency product by providing market views and best execution for clients during low-liquidity New York hours.
- Collaborated with global team to manage order book risk, market events, and client needs during volatile conditions, driving colleagues toward common goal of delivering best-in-class FX platform.
- Charged with additional trading and content writing responsibilities in support of developed markets (G10) currency desk, working cross-functionally and managing parallel responsibilities to meet second revenue target.
- Developed currency trade recommendations for distribution to clients and internal colleagues by evaluating market themes and analyzing related data. Allocated capital to trade ideas for profit generation.
- Communicated with clients to build rapport and understand needs to improve EM and G10 currency products.
- Tested trading systems and collaborated with engineers to address issues needing improvement.
- Used understanding of market liquidity and EMEA emerging markets currency idiosyncrasies to minimize footprint in execution of client trades while often warehousing positions to manage risk and optimize profit opportunities.
- Presented key market news, data releases, and trade ideas at daily meetings with sales and trading colleagues.
- Initiated onboarding of highly coveted client for Barclays through personal contacts.
- Balanced competing interests of clients' desire for tighter bid-offer spreads and bank's goal of profitability.

Currency Trader, London, United Kingdom   2016 - 2018
Drove resurgence of EMEA emerging markets spot currency product by delivering best execution, competitive pricing, and relevant market views to clients and salespeople in fast-paced markets.
- Managed trading risk for EMEA FX books and provided best execution for clients in uncertain market environments.
- Interacted with customers to understand needs, present original trade ideas, and increase engagement and deal flow.
- Communicated market views at daily meetings to inform senior management and sales and trading colleagues.
- Taught and mentored junior colleagues, facilitating growth for trader role and providing constructive feedback.

Currency and Commodities Trader, Tokyo, Japan and Singapore   2010 - 2016
Charged with individual ownership of up to fifteen currency books and four precious metals books at once with focus on hedging risk, capitalizing on market moves for revenue generation, and being mindful of client needs.
- Identified and executed opportunities for improvement to currency products, increasing client deal flow.
- Used self-starter ability to learn precious metals product on short notice to increase trading profits and serve clients.
- Measured market risk of trades and owned responsibility for keeping risk within VaR limits and stop-loss thresholds.
- Assisted other traders, salespeople, and clients through times of crisis and black swan-type events, taking care of issues such as incorrect orders, unbooked trades, liquidity challenges, and P&L discrepancies in volatile conditions.
- Helped electronic FX trading desk with risk management; used kdb+ database queries to find causes of trading losses.
- Traded currency options for individual trading book, generating profits for desk.

RELEVANT EXPERIENCE AND SKILLS

- Understanding of DeFi protocol design, market structure, product-market fit, user needs, token economic models, yield strategies, liquid staking, cross-chain bridges, on-chain data, perpetual futures, and MEV.
- Knowledge of DeFi risks, including smart contract risk, design risk, governance risk, market risk, and liquidity risk. Aware of risks to major DeFi primitives such as Aave, Compound, Maker, and Terra, and vulnerabilities of past attacks.
- Experienced user of DeFi protocols, including using decentralized exchanges, staking, providing liquidity, and borrowing and lending platforms. Knowledge of newest on-chain derivatives protocols and stablecoin products.
- Developed connections in DeFi ecosystem; attended conferences and meetups to gain strong pulse on industry trends.

EDUCATION

Master of Engineering (MEng), Financial Engineering, Cornell University, Ithaca, NY, Dec 2009
Bachelor of Science (BS), Mathematics and Finance, Rutgers University, New Brunswick, NJ, May 2008