

# Sai Srikanth Madugula

Product Manager

✉ [saimadugula.com](http://saimadugula.com)

Lead Product Owner at IWS India and AI/ML PhD Scholar at Woxsen University. Alumnus of UBC Sauder (PG Diploma in Accounting), IIM Ahmedabad (MBA), and Osmania University (B.E. in ECE).

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## Education

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### Woxsen University

[www.woxsen.edu.in](http://www.woxsen.edu.in)

Doctor of Philosophy (PhD), Computer Science Engineering (CSE)

2023 – 2027

Overall GPA: 4.0

Courses: Natural Language Processing Specialization; Deep Learning Specialization

### University of British Columbia (UBC)

[www.ubc.ca](http://www.ubc.ca)

Post-Graduate Diploma, Accounting

2014 – 2016

Overall GPA: 3.2/4

Courses: Introductory Financial Accounting; Information Systems; Introduction to Business Law; Business Finance; Introductory Management Accounting; Introduction to Income Tax

### Indian Institute of Management, Ahmedabad

[www.iima.ac.in](http://www.iima.ac.in)

MBA, Business Administration

2011 – 2013

Overall GPA: 2.64/4

Courses: Data Visualization for Decision Making; Managing Negotiations; Pricing; Mergers, Acquisitions and Corporate Restructuring

### Osmania University

[www.osmania.ac.in](http://www.osmania.ac.in)

Bachelor of Engineering (B.E.), Electronics and Communication Engineering (ECE)

2004 – 2008

Overall GPA: 3.1/4

Courses: Mathematics, Linear Integrated Circuits & Applications, Programming in C & C++, Microprocessors & Microcontroller based System Design

## Work

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### Integrated Wireless Solutions India (IWS India)

[iwsindia.com](http://iwsindia.com)

Lead Product Owner

Oct 2024 – Present

As the Lead Product Owner at IWS, Sai is responsible for shaping solutions that bridge technology and business impact.

- Manages the Sitecore and Contentful web teams for Priority Pass, LoungeKey, and Mastercard Airport Experiences (MCAE).
- Successfully completed the Contentful Certified Content Manager certification, achieving a score of 96%.
- Successfully migrated over 650+ microsite deals from Sitecore CMS to Contentful CMS.
- Facilitates Agile sprint ceremonies in the role of Scrum Master for the Sitecore CMS and Contentful web teams.

## Vinove Software

[www.vinove.com](http://www.vinove.com)

### Product Manager

*Jul 2023 – Sep 2024*

Directed the successful delivery of key features in alignment with strategic objectives.

- Executed the product roadmap in alignment with company goals.
- Drove financial impact by enabling revenue growth and effective customer acquisition.
- Informed product strategy by analyzing market trends and competitive dynamics.

## Mantra Technologies

[mantragroup.com](http://mantragroup.com)

### Project Manager

*Feb 2022 – Jul 2023*

Responsible for defining and owning the product vision, strategy, and roadmap for the HR Suite SaaS offering at Mantra Group.

- Prioritized and managed the product backlog to ensure alignment with business goals and customer needs.
- Worked closely with UX/UI designers to design intuitive, user-friendly interfaces.
- Monitored project progress, tracked milestones, and proactively identified and mitigated risks, issues, and deviations from the project plan.

## Projects

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### Rentr

[rentr.co](http://rentr.co)

#### Product Owner, Lead UX Designer

*Jul 2023 – Jan 2024*

Sai played a pivotal role in spearheading the Rentr mobile application in the UK, where his product vision and execution significantly contributed to the platform's growth and market adoption.

Sai has consistently demonstrated a strong ability to translate business strategy into technically robust and user-centric solutions.

Rentr   Product Owner   Project Management

## Side-projects

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### Woxpa

 [woxpa.com](http://woxpa.com)

World Open eXchange Payments Access. ⚡ The fastest bridge to India for NRIs & SMEs. us CA GB EU AE AU SG NZ. Zero hidden fees. Coming soon!

FinTech Payments Remittances

### MulyaX

 [mulyax.com](http://mulyax.com)

Infrastructure for Loyalty.

Loyalty Rewards

## Skills

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### Web Development

Master

Experience with Perl, Java, C, C++, CSS, JavaScript, HTML, Python, MySQL, Rust, and R, with a strong eagerness to continuously improve and learn new technologies.

HTML CSS Javascript Python MySQL

### UI Design

Master

Highly skilled in UI design with a strong understanding of design principles, user experience, and industry-standard tools such as Figma, Whimsical, Balsamiq, and Visily.ai. Proficient in creating visually appealing, user-friendly interfaces for web and mobile applications.

User Experience Wireframing Prototyping Figma  
Sketch

### Blockchain Development

Expert

Smart Contracts Ethereum Solidity

## Languages

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### English

Advanced

Proficient in English with strong speaking, writing, and comprehension abilities. Able to effectively communicate ideas and understand complex information in both personal and professional settings. Demonstrates strong grammar skills and a broad vocabulary.

### French

Elementary

## Awards

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### **Contentful Certified Content Manager**

*Dec 2025*

Contentful

Successfully completed the Contentful Certified Content Manager certification, achieving a score of 96%.

Reference: [https://www.credly.com/badges/b4eb7fbb-d7fa-414a-93e0-cf48f11b8917/public\\_url](https://www.credly.com/badges/b4eb7fbb-d7fa-414a-93e0-cf48f11b8917/public_url)

### **Winner, Hedge Fund Trading Competition – ‘Fortress Challenge’**

*Apr 2015*

Upgrade Capital

Secured 1st place among 1,550 students across North America in the Hedge Fund Trading Competition, the “Fortress Challenge,” and won prize money of US \$4,000 in 2015.

Reference: <https://ucptl.com/2015/04/>

## Volunteer

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### **Samskruti College of Engineering and Technology**

[www.samskruti.ac.in/engineering](http://www.samskruti.ac.in/engineering)

Assistant Professor

*Jul 2017 – Dec 2019*

Worked as an Assistant Professor in the Department of Business Administration, teaching technology and finance subjects.

- Awarded 'Professor of the Month'.

## Publications

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### A Multi-Agent AI-Blockchain Framework with Reverse Kelly AMM for Under-Collateralized Real-World Asset Lending

Dec  
2025

Research Square

[www.researchsquare.com](http://www.researchsquare.com)

We introduce an Automated Market Maker (AMM)-based lending mechanism that applies a Reverse Kelly criterion to establish loan premiums based on model-estimated default probabilities and collateral ratios. We embed this mechanism in a multi-agent system that completes the financial loop using on-chain reputation and enforcement. This specific combination of Kelly-optimal credit pricing with multi-agent orchestration for under-collateralized assets constitutes the core novelty of our research. Unlike traditional AMMs designed for token exchange, we adapt Kelly's growth-optimal allocation principle to the credit market, thereby establishing a dynamic pricing surface that explicitly links premiums to probabilistic risk. The AI-Blockchain Reverse Kelly AMM (rkAMM) framework integrates three types of autonomous agents: (i) AI-based Risk Assessment Agents (RAA) that estimate borrower default probability (PD); (ii) AMM Pricing Agents (PA) that use the Reverse Kelly criterion to determine loan premiums and an optimal capital allocation fraction; and (iii) Smart Contract Enforcement Agents (SEA) that guarantee transparent execution and update an immutable on-chain reputation registry.

We provide empirical validation of the framework through extensive simulation. First, a head-to-head ablation study on an identical 10,000-loan stream demonstrates that the Reverse Kelly strategy achieves a 14.3% annualized growth rate, which surpasses proportional-premium (10.8%) and fixed-premium (7.6%) models. We report critical risk metrics, including max drawdown (18.2% vs. 25.4%) and loss ratio (8.1% vs. 12.7%), confirming superior risk-adjusted returns. Second, a stress test utilizing fat-tailed PD shocks verifies that the Kelly-based allocation rule automatically clips exposure, which maintains pool stability. Finally, a minimal Layer 2 (L2) testnet deployment validates the proposed on-chain logic. Our results offer robust and reproducible evidence for this novel, capital-efficient, and resilient architecture intended for decentralized under-collateralized lending.

### Distributed Ledger Infrastructure for Fiat-Referenced Assets and Real-World Asset Tokenization in the International Financial Services Centre (IFSC): A Protocol Specification and Regulatory Compliance Architecture

Feb  
2026

Research Square

[www.researchsquare.com](http://www.researchsquare.com)

The global financial architecture is undergoing a paradigmatic shift from account-based legacy systems to token-based distributed ledger technologies (DLT). While the internet has democratized the exchange of information, the movement of economic value remains constrained by pre-digital, siloed infrastructures that impose significant latency and cost. This paper presents a comprehensive architectural proposal for the IFSCA Tokenization Network (ITN), a regulated, permissioned DLT infrastructure designed specifically for the Gujarat International Finance Tec-City (GIFT City). Addressing the "blockchain trilemma" of decentralization, security, and scalability within a sovereign regulatory framework, this proposal synthesizes the architectural principles of the Centre Consortium's open protocols with the statutory requirements of the International Financial Services Centres Authority (IFSCA). We introduce and formalize the "Twin-Rupee" liquidity model, utilizing Asset Reserve Certificates (ARC) backed 1:1 by sovereign debt to solve the currency convertibility challenges inherent to the IFSC. Furthermore, we provide rigorous technical specifications for identity-gated token standards (ERC-3643), high-throughput state channels for institutional settlement, and Hashed TimeLock Contracts (HTLC) for atomic cross-chain interoperability. We conclude with a detailed analysis of the system's compliance with the IFSCA Payment Services Regulations 2024, demonstrating how programmable value can coexist with strict anti-money laundering (AML) and counter-terrorist financing (CFT) mandates.

## References

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### Pepitluis Esteva de la Rosa

It is my pleasure to recommend Sai, whose performance as a PhD Research Scholar at Woxsen University has proven that he will be a valuable addition to any organization.

## Interests

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### Reading Books

Autobiographies    Jack Reacher Novels

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