

Hedron DeFi AI Agent

Reinventing DeFi navigation on Hedera Hashgraph

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Hello Future Hackathon

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Agenda

- 1 Team Introduction
- 2 Project Overview
- 3 Technical Innovation
- 4 Market Integration & Success
- 5 Future Roadmap
- 6 Demo & Live Showcase
- 7 Conclusion

Meet Our Team



Ashutosh Kumar

Developer Relations

INDIA

- Community Building
- Developer Advocacy
- Technical Docs



Sebastian Diaz

Lead Developer

COLOMBIA





- Full-Stack Development
- AI/ML Integration
- Smart Contracts

Expertise: Blockchain, AI, DeFi & Communities

The Problem We're Solving







Novice Users Challenges

-  **Complex ecosystem** to navigate
-  **Technical knowledge** barriers
-  **Risk of losses** from inexperience
-  **Fragmented information** sources



Expert Users Pain Points

-  **Time-consuming** manual monitoring
-  **Missed opportunities** in fast markets
-  **Complex analysis** across protocols
-  **Lack of automation** tools

Result: Users struggle with DeFi navigation & yield optimization

Our Solution: Hedera DeFi AI Agent



AI-Powered DeFi Navigator



WebSocket Agent Flow

- 💬 CONNECTION_AUTH authentication
- 📶 USER_MESSAGE processing
- 🧠 AGENT_RESPONSE with analysis
- 👤 TRANSACTION_TO_SIGN flow



DeFi Tools Integration

- ✓ SaucerSwap DEX & quotes
- ✓ Bonzo Finance lending
- ✓ AutoSwapLimit orders
- ✓ Infinity Pool staking



Intelligent Automation

- 🔒 Intent-based tool routing
- 📈 Multi-step operation handling
- 🕒 Real-time data analysis
- 🧠 Persistent memory context

Technical Architecture & Innovation

WebSocket Agent Flow



- Persistent real-time connections
- User authentication & sessions
- 7 message types support
- Scalable multi-user architecture

AI Agent Intelligence



- LLM with persistent memory
- Natural language processing
- Intent-based tool routing
- Real-time data analysis

DeFi Tools Suite



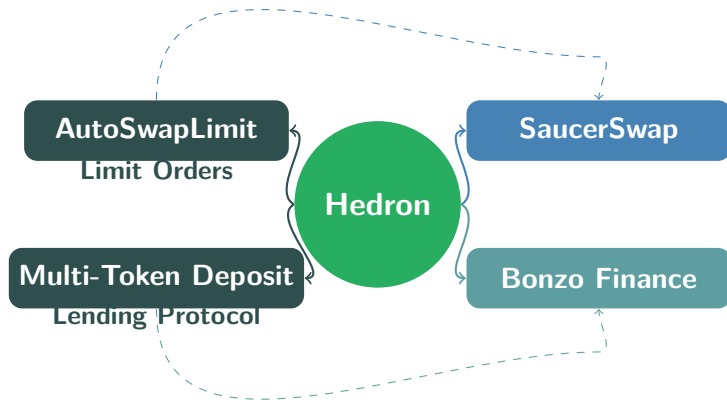
- 25+ specialized DeFi tools
- Bonzo Finance lending integration
- SaucerSwap DEX & quotes
- AutoSwapLimit order system

Security & Performance



- External transaction signing
- 30-second smart caching
- TypeScript & Zod validation
- HTS/HCS native support

Hedera DeFi Ecosystem Integration



Success Metrics & Validation

✓ Technical Implementation

- **WebSocket Agent:** Multi-user real-time system
- **25+ DeFi Tools:** Complete integration suite
- **AI Intelligence:** LLM with persistent memory
- **7 Message Types:** Comprehensive communication

👥 Market Innovation

- **First AI agent** with AutoSwapLimit integration
- **Natural language** DeFi operations
- **Intent-based routing** to specialized tools
- **External signing** for maximum security

Result: Production-ready AI agent with comprehensive Hedera DeFi integration

Future Development Roadmap

Phase 1 (Q2 2026)

- Smart alerts & notifications
- Additional protocol integrations
- Advanced analytics dashboard
- Mobile-responsive web interface

Phase 3 (Q4 2026)

- Multi-chain expansion
- Professional trader tools
- API for third-party integrations
- Enterprise solutions

Phase 2 (Q3 2026)

- Automated strategy execution
- ML-powered predictive analysis
- Portfolio optimization algorithms
- Advanced risk assessment

Community Impact

- **Democratize DeFi access** for all users
- **Increase Hedera adoption** through easier UX
- **Educational content** for DeFi literacy
- **Open-source contributions** back to community

Live Demo Showcase

▶ WebSocket Agent Demo

🖥️ Agent Interactions

- **CONNECTION_AUTH:** User authentication
- **Natural language:** "Show me SaucerSwap yields"
- **SWAP_QUOTE:** Structured price data
- **AutoSwapLimit:** "Set limit order 1000 SAUCE"
- **Multi-step flows:** Bonzo deposits

🔗 Technical Demo Points

- **WebSocket messages:** Real-time communication
- **25+ DeFi tools:** Intelligent routing
- **Memory persistence:** Context awareness
- **Transaction flow:** External signing
- **Error handling:** Graceful failures

Demo Command: `npm run start:websocket`

Why Hedera DeFi AI Agent Wins

Innovation

- **First AI WebSocket agent** for Hedera DeFi
- **25+ specialized tools** integration
- **Intent-based routing** system

Technical Architecture

- **Real-time WebSocket** communication
- **Persistent memory** for context
- **Multi-user sessions** support

DeFi Integration

- **SaucerSwap**: DEX, quotes & Infinity Pools
- **Bonzo Finance**: Lending & borrowing
- **AutoSwapLimit**: Advanced limit orders

Agent Capabilities

- **Natural language** DeFi operations
- **7 message types** for comprehensive flow
- **External transaction** signing

Market Impact

- **Democratizes DeFi** access for all users
- **Reduces complexity** through AI assistance
- **Enables automation** without custody

Production Ready

- **TypeScript & Zod** validation
- **Comprehensive error** handling
- **Smart caching & rate** limiting

Thank You!

♥ Thank You!

Questions & Discussion

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GitHub: `github.com/rofergon/Hedron`

Demo: [YouTube link to be inserted]