

JAY UKWE

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EDUCATION

University of Houston, Houston, TX

Jan 2025 - Present

Bachelors of Science in Computer Science

Relevant Coursework: Statistics, Database Systems, Algorithm and Data Structures, Numerical Methods, Software Design, Operating Systems, Introduction to Automata and Computability

Houston Community College, Houston, TX

Aug 2023 - Dec 2024

Bachelors of Science in Computer Science

Relevant Coursework: Linear Algebra, Discrete Mathematics, Computer Science and Programming, Introduction to Programming, Programming and Data Structures, Computer Organization and Architecture

University of Texas at Austin, Austin, TX

Aug 2022 - May 2023

Bachelor of Science in Electrical and Computer Engineering

WORK EXPERIENCE

Software Engineer | Whitson

Aug 2024 – Present (Part-Time) | May 2024 – Aug 2024 (Intern)

- Develop and maintain full-stack features using Vue.js on the frontend and Python (Flask, SQLAlchemy) on the backend, supporting a production system backed by PostgreSQL
- Designed and implemented file upload workflows, building corresponding backend endpoints and frontend components to ensure reliable data ingestion
- Contributed to bug fixes, client support, and feature enhancements, improving application stability and usability
- Work on the Data Integration team, designing and implementing external API endpoints to import and export data between the platform and external sources
- Integrate and process data using Snowflake, Databricks, and Peloton, supporting scalable data pipelines and analytics workflows
- Deploy and maintain services using Kubernetes on Google Cloud, collaborating via Bitbucket with Git-based workflows
- Utilize Ubuntu and Bash scripting for development, debugging, and environment management
- Took on increased ownership after internship, onboarding and mentoring new interns and contributing to system design discussions

RELEVANT PROJECTS

Solana Auto Buy and Sell Trading Bot | Personal Project

Tools: TypeScript, Node.js, Solana Web3.js, Jupiter Swap API, SQLite, Winston, WebSocket, Helius RPC

- Built a high-frequency trading bot on Solana that automates token buys/sells using real-time market signals
- Implemented dynamic trade execution logic using Jupiter's Swap API with configurable take-profit and stop-loss strategies
- Integrated WebSocket-based signal ingestion to enable low-latency execution on Solana mainnet
- Developed a price monitoring and auto-sell system with retry logic, failure handling, and comprehensive logging
- Persisted trade history and PnL in SQLite for post-trade analysis

Impact: Supports 50+ daily trades and concurrent position monitoring with low latency and fault tolerance

Telegram Mint Signal WebSocket | Personal Project

Tools: Python, Telethon, WebSocket, Solana RPC, Regular Expressions, JSON

- Designed a real-time signal pipeline that extracts Solana token mint addresses from Telegram channels
- Built a Python-based Telegram listener using Telethon to monitor multiple channels simultaneously
- Parsed unstructured messages using regex validation and broadcast clean signals via WebSocket
- Optimized for low-latency delivery, enabling bots to react within seconds of announcements

Impact: Processes hundreds of messages daily while delivering reliable, noise-filtered mint signals

Cryptocurrency Telegram Bot | Personal Project

Tools: Python, PostgreSQL, pyTelegramBotAPI, HTTP Requests, Solana RPC, BIP utilities, PostgreSQL Database

- Developed a DeFi-focused Telegram bot for crypto acquisition and token swaps on Solana
- Implemented BIP-32 hierarchical deterministic wallets with secure mnemonic generation
- Designed encrypted PostgreSQL-backed user authentication and storage
- Integrated Web3 swap functionality and Telegram-based user interfaces for seamless interaction

RELEVANT SKILLS

Certificates: IBM Python for Data Science, AI & Development (Coursera)

Programming Languages: Typescript, Javascript, Python, SQL, R

Data Science & Machine Learning: Keras, Scikit-learn, Predictive Modeling

Blockchain & Cryptocurrency: Solana RPC, BIP-32 Hierarchical Deterministic Wallets, Web3 Swap Creation, Cryptocurrency Transactions

Database Management: Telethon, Streamlit, pyTelegramBotAPI, Vue.js, Flask, RESTful API Design, External API Integrations, HTTP Requests, Web Socket Server, File Upload & Data Ingestion Workflows

Cloud, DevOps & Data Platforms: Google Cloud Platform (GCP), Kubernetes, Snowflake, Databricks, Peloton

Web Development & Tools: Telethon, Streamlit, pyTelegramBotAPI, Vue.js, Flask, RESTful API Design, External API Integrations, HTTP Requests, Web Socket Server, File Upload & Data Ingestion Workflows

Development Environments: Visual Studio Code, GitHub, Bitbucket, Git (CLI workflows), Ubuntu, Bash Scripting, MacOS

Languages: English (Native), Spanish (Intermediate)