

DARYCK BROWN

West New York, New Jersey 07093 · (732)-275-7532

Daryckjbrown@gmail.com · <https://www.linkedin.com/in/daryck-brown-903559138> · <https://github.com/NymbusNode>

Systems/Software Engineering— A versatile software engineer experienced in python back-end development of high-speed trading systems used by financial institutions, and full-stack development of fintech, blockchain, & AI/ML web applications. Skilled in implementing automated systems, and is well versed in multiple programming languages, web development frameworks, virtualization, LLMs & generative AI, databases, Linux OS, ETL & data analysis algorithms.

SKILLS

- **Languages:** Python, Java, C, C++, Typescript
- **Backend Frameworks:** Django, FastAPI, Celery
- **Frontend Frameworks:** Next.js, React, Vite, Tailwind,
- **AI/LLMs Development** – LangChain, OpenAI API, PydanticAI
- **Blockchain/FinTech:** Web3, CCXT, Validator Node Operator, Blockchain Python SDKs
- **Databases:** PostgreSQL, MongoDB, MySQL, Redis, SQLite, DBeaver, Process Pooling
- **Virtualization/Containers:** VMware, Proxmox, Docker
- **APIs/Comms** – REST, gRPC, JSON-RPC, SSH, webhooks
- **Cloud Hosting** – Digital Ocean, AWS
- **Financial Analysis** – Risk & PnL, portfolio analysis
- **Libraries:** Pandas, NumPy, Pydantic, TensorFlow
- **Security:** SSH Encryption, UFW Firewall, Fail2Ban
- **Caching:** Redis, functools
- **User Authentication:** JWT, HttpOnly Cookies

ENTREPRENEURSHIP VENTURES

NOVEMBER 2022 – PRESENT

CO-FOUNDER, SOFTWARE ENGINEER, CHIEF TECHNOLOGY OFFICER,

NYMBUS CAPITAL, LLC

Summary: Shape the company's technological vision, driving software development initiatives, and overseeing the implementation of innovative solutions/products in the AI and Blockchain Industry. Collaborate with CFO/co-founder and contribute to the overall business strategy.

Key Responsibilities:

- Lead software design & development, providing technical expertise to ensure the delivery of quality products.
- Develop/implement the company's overall technology strategy and roadmap, aligning it with business objectives.
- Collaborate closely with the CFO to translate business requirements into scalable and efficient software solutions.
- Oversee end-to-end software development lifecycle, from design to coding, testing, deployment, & maintenance.

Developed Products & Services:

1) Main Company Product – Blockchain AI Assistant Web Application (2024-Present):

My Role: Full-Stack Developer, Blockchain Developer, AI Integration Engineer & more

Status: In Development

- I'm the sole developer of the company's web application integrating AI-powered insights, blockchain wallet management, staking, and DeFi tools.
- **Features:** Blockchain-expert AI chat assistant, portfolio tracker, multi-chain wallet integration, staking dashboards, price alerts, financial analysis, real-time blockchain data access, and more.
- **Tech Stack:** Django, Next.js, Python, Axios, Web3, OpenAI AI Assistant API, Langchain, PostgreSQL, Redis, Docker, Nginx, Stripe, Celery Async, Github, Grafana, Prometheus, Ansible, Blockchain Python SDKs
- **Comm Protocols:** REST, RPC, gRPC, https, SSH
- **Expected Release Date:** July 2025

2) Nymbus Node - Blockchain Validator Staking Service (2023-Present)

My Role: Lead Developer & Reliability Engineer

Status: In Production

Website: Nymbusnode.com

- Designed, developed & managed PoS blockchain validator nodes on multiple blockchain networks, self-hosted from my home lab via Proxmox Hypervisor and Dell PowerEdge R820 servers.
- Implemented Nginx reverse proxy and SSH encryption for secure node operations.
- Integrated monitoring, reporting and maintenance systems via Linux for 20+ Cosmos-based blockchain nodes.
- Migrated 20+ VMs from VMware ESXi Hypervisor to Proxmox Hypervisor

EXPERIENCE

APRIL 2022 – PRESENT

SOFTWARE ENGINEER II (PYTHON BACK-END DEVELOPER), TEKSYSTEMS / BANK OF AMERICA

Key Role: Backend software engineer supporting the development and automation of Bank of America's Rates Trading Workstation (RTW) ecosystem, a comprehensive suite of applications and services facilitating pre- and post-trade processes, pricing, and trade reconciliation for financial markets.

Responsibilities:

- **Developed and enhanced backend services** and automated workflows for trading assistants in the financial domain, improving operational efficiency and reducing manual interventions.
- **Designed** and implemented solutions within the DTCC Tool, enabling predictive counterparty matching using machine learning models and improving trade reporting accuracy.
- **Collaborated** on the QRCT Core Services platform to provide scalable microservices supporting trade data caching, market pricing, and risk reporting.
- **Supported** TA Blotter development to streamline trade reconciliation, risk monitoring, and investigations, enabling real-time insights for trading assistants.
- **Wrote technical documentation**, facilitated knowledge transfer during new hire onboarding, and collaborated with trading desk assistants to identify and fulfill application needs.
- **Release Management & DevOps Leadership:** Led the planning, execution, and deployment of patch and full software releases, ensuring on-time delivery and system stability. Implemented DevOps best practices to streamline CI/CD pipelines, improve release workflows, and minimize downtime during deployments.

Utilized Technologies: Python, Quartz, AMPS, Sandra DB, MongoDB, XML & YAML configs, Grafana, JIRA.

Accomplishments:

- Delivered high-quality production code (**12,000+** lines added, **179+** files in production) with a focus on stability and performance.
- Streamlined backend infrastructure and improved database reliability, supporting real-time and high-volume financial data operations.
- Facilitated seamless database migrations and improved system observability through Grafana dashboards.

NOVEMBER 2020 – APRIL 2022

CONTROLS ENGINEER (AUTOMATED PARKING SYSTEMS), LODIGE USA

Key Responsibilities: Commissioning/programming, managing, & rapid technical support of PLC automated parking garage systems in for upscale condominiums in NYC & Boston MA

Associated Tasks: Program/compile ladder logic & function block PLC UnityPro software; SQL database management and query scripting; Updating .xml & JSON files of the parking systems' user facing application; RFID Relay.

Microsoft SQL Server Management Studio: Writing various SQL query scripts to locate, gather, sort, and export specific data of interest for detailed analysis. Applicable in cases of pinpointing specific system faults, compile system performance metrics (ex. car retrieval times) and gather system records to generate reports for clients as needed.

AUGUST 2019 – NOVEMBER 2020

SYSTEM SOLUTIONS ENGINEER (AUTOMATION CONTROL SYSTEMS), XYNTEK INC.

Key Responsibilities: Provided project support on various control systems and automation platforms including distributed control systems, MoM & MES, programmable logic control (PLC) systems, Cognex machine vision programming, & robotic systems. Updating/maintaining SOP documentation. Setup/configuration of physical demonstration lines and associated tracking systems for potential clients/customers.

Achievements: Completed SAT validation testing & system configuration of Abbott Diabetes Care's high-volume medical device aggregation production line at Flex LTD. Installed, programmed, and commissioned Cognex machine vision barcode validation stations at multiple Amazon and Walmart distribution centers.

Java Scripting Assisted Validation Testing: Created a program to improve the speed and efficiency of a SAT validation testing of our client's, Abbott Diabetes Care's aggregation production line. The program performed a multi stepped encrypted conversion of their product IDs.

Programmable Logic Controls Virtual Test Environment: Designed a PLC simulator environment using Rockwell's Connect Components Workbench, Micro800 Simulator, and Factory Talk View Studio.

JUNE 2017 – MAY 2019

ELECTRICAL ENGINEER, RENEWABLE ENERGY SYSTEMS, AMERICAS INC.

Project Management: Prepared and distributed schedules, extensive daily production tracking and reporting, medium voltage system procurement, electrical installation QAQC inspections, OSHA inspections, and oversaw/managed meteorological tower & electrician sub-contractors.

Engineering: Reviewed initial 60,70,80,90% electrical/fiber optic drawings and submitted recommendations for IFC plans of MV distribution systems. Provided in-field engineering support to field employees.

Electrical Testing: Ground Grid Resistivity Slope Testing/calculations, monitored partial discharge and VLF testing, and electrical trouble shooting/debugging of meteorological tower instrumentation and sensors.

EDUCATION

2013 – 2017

ELECTRICAL ENGINEERING, BACHELOR OF SCIENCE, IOWA STATE UNIVERSITY

Notable Courses: Circuit Analysis; C-Programming; Java Programming; Signals & Systems; Semi-conductors Materials/Devices; Embedded Systems; Digital Logic; Marketing; Optoelectrical Devices

Collegiate Extracurriculars: Arduino Club, Audio Club.

Collegiate Employment: Worked as a College Algebra Tutor for Iowa State's Student Success Program.

JUNE 3, 2019

EIT NCEES CERTIFICATION, PASSED ELECTRICAL/COMPUTER FE EXAM ON MAY 22, 2019

Credential ID: EI.0076223

COLLEGIATE PROJECTS

Breast Milk Flowmeter App (Senior Design Project-2017):

My senior design group designed a breast milk flowmeter and a mobile app for our client to help mothers track the quantity of milk they feed their babies. We used optical sensing as our method to measure the rate of flow. The physical device communicated wirelessly via Bluetooth with the Android app.

Hardware Tech Stack: Arduino UNO, C++, Optical Photon Intensity Sensor Module

For additional details please visit our project team's website: <http://may1726.sd.ece.iastate.edu/>