

## EXPERIENCE

**Information Technology Solutions**

August 2021 – Present | Junior Full Stack Developer / Technical Lead (Employee of the year 2022 &amp; 2024)

- › Led end-to-end design and delivery of a scalable multi-platform telehealth application from concept to production deployment across iOS, Android, and web. Architected complex system integrations with Microsoft Teams Bookings API and Twilio, implementing real-time communication features serving thousands of patients. Drove technical decisions balancing immediate business needs with long-term maintainability using Dart, C#, TypeScript and JavaScript with PostgreSQL GraphQL backend via Hasura. Designed custom Mapbox integration to optimize physician-pharmacy coordination, demonstrating autonomous problem-solving in ambiguous requirements.
- › Owned and resolved long-standing technical challenges across heterogeneous environments including macOS, Linux, Unix, Windows Server, iOS, and Android platforms. Provided technical leadership in ADDC management, network architecture (Cisco/Unifi), VPN infrastructure, and complex database migrations spanning SQLite, PostgreSQL, SQL Server and Oracle. Collaborated cross-functionally to deliver reliable, customer-focused solutions while mentoring team members on best practices.
- › Designed and maintained scalable cloud and on-premises production infrastructure implementing CI/CD best practices. Drove adoption of Infrastructure as Code using Python and TerraformCDK with Azure resources, improving deployment reliability and reducing manual configuration errors. Advocated for engineering excellence through automated testing and deployment pipelines.
- › Developed reusable internal tools and automation solutions using Microsoft PowerApps and custom scripting, raising team productivity standards. Created PowerShell automation scripts for group policy configuration and system provisioning, saving 100+ engineering hours annually while improving consistency and reducing errors.
- › Modernized client web properties with custom CSS and JavaScript implementations on WordPress and Wix platforms, optimizing for SEO and performance. Delivered measurable business impact with 200% traffic increase through technical optimization and quality advocacy.
- › Provided constructive feedback through code reviews and design discussions, fostering continuous learning culture. Mentored junior engineers on software architecture patterns, debugging techniques, and professional development, contributing to overall team growth and technical excellence.

**AlgoPulse Research Ltd.**

August 2023 – Present | Founder &amp; Technical Lead

- › Drove strategic technical direction for algorithmic trading platform from inception, designing scalable system architecture supporting both automated and semi-automated trading strategies. Delivered high-impact solutions using Python, C#, JavaScript, and PineScript, achieving 48% win rate and 2.3 profit factor through iterative testing and optimization. Demonstrated deep problem-solving expertise in handling complex quantitative finance challenges.
- › Pioneered from-scratch development of diffusion models for financial time series forecasting, implementing novel probabilistic generative approaches to market prediction. Designed and trained custom neural architectures capable of capturing complex market dynamics and uncertainty quantification.
- › Architected FinGPT, an autoregressive financial prediction model leveraging transformer-based architectures for sequential market data analysis. Developed hybrid mixture-of-experts system combined with tiny recursive models to optimize prediction accuracy while maintaining computational efficiency and interpretability.
- › Architected secure real-time data transmission system using webhook infrastructure, ensuring reliable signal delivery to customer platforms with minimal latency. Prioritized system reliability and data integrity through robust error handling and monitoring.
- › Designed and built comprehensive educational platform featuring modular course architecture with interactive components and assessment systems. Created reusable UI patterns and knowledge-sharing content to enhance user engagement and learning outcomes.
- › Developed and optimized Algopulse.org implementing custom CSS and JavaScript solutions, advocating for technical quality and SEO best practices. Balanced business requirements with sustainable technical implementation.
- › Engineered automated marketing automation systems improving customer onboarding experience and doubling long-term retention rates. Demonstrated ability to drive measurable business outcomes through technical solutions.

- › Led cross-functional team collaboration with designers, marketers, and sales professionals to deliver cohesive product vision. Provided technical leadership resulting in successful platform launch acquiring 12 users within six months while maintaining high quality standards.
- › Continuously expand technical expertise through research in quantitative finance, statistical time series analysis, and machine learning applications including ARIMA and GARCH models. Apply Fourier Transform techniques for signal processing and pattern recognition, demonstrating passion for continuous learning and technical growth.

## TECHNICAL SKILLS

- › **Machine Learning & AI:** Diffusion Models, Transformer Architectures, Mixture of Experts, Autoregressive Models, Recursive Neural Networks, Time Series Forecasting, ARIMA, GARCH, Fourier Transform, Statistical Analysis
- › **Languages:** TypeScript, JavaScript, Python, C#, Dart, SQL, GraphQL, PowerShell, Bash, PineScript
- › **Architecture & Design:** System Design, Scalable Solutions, Microservices, API Design, Design Patterns
- › **Cloud & DevOps:** Azure, Docker, CI/CD Pipelines, Infrastructure as Code, TerraformCDK, Deployment Automation
- › **Databases:** PostgreSQL, SQL Server, SQLite, Oracle, Hasura, Database Migration & Optimization
- › **Web & APIs:** REST APIs, Webhooks, JSON, HTML, CSS, WordPress, SEO Optimization, Mapbox Integration
- › **Platform Expertise:** Multi-platform Development (iOS, Android, Web), macOS, Linux, Unix, Windows Server
- › **Leadership & Collaboration:** Technical Mentorship, Code Review, Cross-functional Team Leadership, Documentation