Oleksii I.
Senior Full Stack Engineer

SUMMARY

- Full-stack software engineer with an MS degree in Computer Science;
- Designed and operated event-driven, cloud-native architecture.
- Back-End: Node.js, NestJS, Express (8 years); SQL/NoSQL DBs, performance optimization, data processing (Python), ML pipelines, CI/CD DevOps practices. Wide experience with Databases (MongoDB, PostgreSQL, MySQL, DynamoDB, etc.);
- Front-End: React (including forms, dashboards, admin tools), 6 years.
- Unit and E2E tests (Karma, Jest, Cypress, Playwright)
- Expert in serverless AWS architecture: Lambda functions, asynchronous message queues SQS, RabbitMQ; Ownership from requirements to production in serverless/ event-driven B2B systems.
- Built demand forecasting with TimeGPT, TimesFM, TiREX; integrated Python ML pipelines into NestJS via RabbitMQ; implemented an AI chatbot for inventory insights and recommendations (using LangChain principles)
- Developed an AI-powered inventory & demand planning platform for e-commerce merchants; built a multi-tenant CRM for service companies and a real estate platform with direct customer requirements integration.

TECHNICAL SKILLS

Main Technical Skills	Node.js, TypeScript, AWS, React
Programming Languages	JavaScript, Python, TypeScript
AI & Machine Learning	AI, ChatBot, LangChain
Android Libraries and Tools	Android Jetpack, Room (Android Jetpack)
JavaScript Frameworks	Angular, Express, Ext JS, jQuery, NestJS, Node.js, React
Java Frameworks	Apache Spark
Scala Frameworks	Apache Spark
JavaScript Libraries and Tools	Apollo, Pm2, Redux
Mobile Frameworks and Libraries	Crashlytics
Java Libraries and Tools	Knex.jx
PHP Frameworks	Laravel
Social Media Merketing	Webex
	Apache Spark, ML

Data Analysis and Visualization Technologies	
Security	RSA
Databases & Management Systems / ORM	Apache Hadoop, Apache Spark, Aurora, AWS DynamoDB, AWS ElasticSearch, MongoDB, MySQL, PostgreSQL, Prisma, Prisma ORM, Query, Redis, Sequelize, Supabase, Typeorm
UI Frameworks, Libraries, and Browsers	Bootstrap, Bootstrap 4, CSS, EDGE, HTML, jQuery, Socket.io, UI
Cloud Platforms, Services & Computing	AWS, Azure, CloudFlare, DigitalOcean, GCP, Serverless
Amazon Web Services	Amazon Elastic Load Balancer, AWS API, AWS Cloudformation, AWS CloudFront, AWS Cognito, AWS DynamoDB, AWS EC2, AWS ECR, AWS ECS (Amazon Elastic Container Service), AWS Elastic Kubernetes Service (EKS), AWS ElasticSearch, AWS ELB, AWS EventBridge, AWS Fargate, AWS Lambda, AWS RDS (Amazon Relational Database Service), AWS S3, AWS SAM, AWS Secrets Manager, AWS SES, AWS SES (Amazon Simple Email Service), AWS SNS, AWS SQS
Azure Cloud Services	Azure App Service, Azure CI/CD, Azure Cloud Services, Azure infrastructure
Third Party Tools / IDEs / SDK / Services	Algolia, Android Jetpack
SDK / API and Integrations	API, AWS API, Google Maps API, GraphQL, JWT, OpenAPI, Shopify API, Stripe
Operating Systems	Arch, Linux, macOS, Windows
Deployment, CI/CD & Administration	Azure CI/CD, CI/CD, Jenkins
Blockchain and Decentralized Software	Bitcoin Blockchain
Collaboration, Task & Issue Tracking	Cron
QA, Test Automation, Security	Cypress, Jest, Karma, Mocha, Playwright, Xray
Virtualization, Containers and Orchestration	Docker, Terraform
Logging and Monitoring	Dozzle, Zabbix
Version Control	Github Actions
Platforms	HubSpot, JetAdmin, Retool, Webex
Mail / Network Protocols / Data transfer	JWT, WebSockets
	Kanban, OOP, Scrum

Methodologies, Paradigms and Patterns	
Web/App Servers, Middleware	Nginx
Message/Queue/Task Brokers	RabbitMQ

WORK EXPERIENCE

Full Stack Engineer, DevOps, Forecast - AI-Powered Inventory Management & Demand Planning Forecasting Platform

Duration: September 2025 - present

Summary: An e-commerce inventory optimization platform that solves two critical problems: preventing costly stockouts that lose sales, and eliminating overstock that ties up capital. Merchants gain AI-driven reorder recommendations and 12-month demand forecasts to maintain optimal inventory levels.

Responsibilities:

- Designed and implemented demand planning module with AI forecast integration and manual override capabilities for SKU-level predictions;
- Integrated Python ML pipeline (TimeGPT, TimesFM, TiREX) with NestJS backend via child process spawning and RabbitMQ message queues;
- Built a Shopify GraphQL synchronization system for real-time product, order, and inventory data with incremental and manual sync support;
- Implemented database optimization strategies using PostgreSQL materialized views for sub-100ms query performance on reorder calculations;
- Developed an order sync mapper to use payment dates (processedAt) for accurate demand forecasting instead of creation timestamps;
- Created a hierarchical product/SKU forecasting system with proportional override redistribution and correlation-based calculations;
- Implemented user override persistence with bulk total redistribution across future months, maintaining revenue/units correlation;
- Built RabbitMQ-based async job processing for forecast refresh, settings changes, and sync operations with 30-minute timeout handling;
- Integrated AI chatbot functionality for inventory insights and recommendations;
- Resolved Shopify API scope limitations (read_all_orders) to access historical data beyond 60-day default window;
- Developed reorder recommendation system with forward stock curve calculations per SKU × Location;
- Implemented TypeORM entities and database migrations for demand planning, forecasts, and monthly value aggregations;
- Built Docker multi-stage builds separating API, sync-worker, and Python ML services for optimized image sizes;
- Created manual sync job orchestration with parent-child job relationships and status tracking.

Achievements:

- Architected a Green-Field Cloud-Native Platform: Designed and built the entire backend ecosystem from the ground up, utilizing a microservices-inspired approach with NestJS and Python ML services.
- Scalable AI Pipeline Integration: Engineered a robust bridge between the NestJS backend and Python ML frameworks (TimeGPT, TimesFM) using RabbitMQ, allowing for asynchronous, high-load demand forecasting without blocking the main API.

Technologies: Node.js, TypeScript, PostgreSQL, Nest.js, Digital Ocean, Redis, RabbitMQ, Shopify API, Zabbix, Dozzle, Cloudflare.

Full Stack Engineer, Real estate project

Duration: Oct 2024 - August 2025

Summary: A real estate project that resolves 2 main problems. For builders to find clients who can pay, and for clients to find real luxury apartments and houses. Integrated functionality to work with Google Maps and, in the future, Elastic Search (probably). The project is in the stage of development, and in April, plans to have a working MVP.

Responsibilities:

- Designed and implemented project arch on AWS services;
- Designed and implemented GraphQL APIs with role-based access and social login via Cognito (Google, Apple);
- Built a scalable image delivery pipeline using S3, CloudFront, and Lambda@Edge for dynamic WebP optimization;
- Developed and maintained Stripe-based subscription billing flows with prorated invoicing and webhook handling;
- Integrated Algolia search with real-time indexing via SQS-triggered Lambdas;
- Built CI/CD pipelines and automated ECS/SAM deployments for dev and prod environments;
- Implemented coaching (Redis) and performance optimizations across key endpoints;
- Developed impersonation and internal tooling via Retool for admin support.

Achievements:

- Full-Cycle AWS Infrastructure Design: Defined and deployed a comprehensive, scalable cloud infrastructure using AWS ECS Fargate, Lambda, and Cognito to support a luxury market user base.
- Automated Content Delivery Ecosystem: Built a high-concurrency image delivery pipeline leveraging Lambda@Edge for dynamic optimization, ensuring the platform stays lean and fast regardless of media volume
- Infrastructure as Code (IaC): Standardized deployments by implementing AWS SAM and GitHub Actions, creating a repeatable and stable path from development to production.
- Advanced Search & Billing Integration: Orchestrated a seamless real-time search experience via SQS-triggered Algolia indexing and a sophisticated Stripe-based subscription engine.

Technologies: Node.js, TypeScript, PostgreSQL, GraphQL (Apollo Server), AWS (ECS Fargate, Lambda, S3, RDS, CloudFront, Secrets Manager, Cognito), Stripe, Algolia, Redis, SQS, SES, SAM (Serverless Application Model), Docker, GitHub Actions, Retool.

Full Stack Engineer, CRM project

Duration: Aug 2022 - Oct 2024

Summary: CRM for landscape workers and companies.

Responsibilities:

- Full-stack development of a CRM system for landscape workers and service companies, including both backend services and frontend user interfaces.
- Designed and implemented CI/CD pipelines, automating build, test, and deployment processes for faster and more reliable releases.
- Implemented a multi-tenant architecture, ensuring data isolation, scalability, and support for multiple client organizations.
- Built and maintained Azure cloud infrastructure, deploying and managing application services and containerized workloads.

Technologies: Node.js, Nest.js, Angular2, Mongodb, Azure App service, Azure Container Instance, Azure CI/CD, Docker.

Back-end Engineer, Medicine chat app

Duration: Mar 2024 - Jul 2024

Summary: A chat app for medical institutions, with role-based access and multi tenancy.

Responsibilities:

- Back-end development of a multi-tenant chat application for medical institutions, including core business logic and role-based access control.
- Designed and implemented the database architecture, focusing on data consistency, access isolation between tenants, and scalability.
- Implemented real-time communication and event handling using Socket.io to support instant messaging and live updates.
- Built and managed AWS cloud infrastructure, deploying containerized services with AWS Fargate and configuring relational databases via AWS RDS.

Technologies: AWS Fargate, AWS RDS, Node.js, TypeScript, Prisma ORM, Docker, Docker-compose, OpenAPI.

Full Stack Engineer, Virtual room project

Duration: Sep 2023 - Feb 2024

Summary: An app based on Webex API, a virtual room with a huge number of users, who can attend different rooms inside that virtual room and participate in the meetings with other users.

Responsibilities:

- Developed application logic based on the Webex API, implementing backend functionality for virtual rooms and user participation in online meetings.
- Worked on both back-end and front-end development, integrating server-side APIs with a jQuery-based user interface.

Technologies: Webex API, Websockets, Node.js, jQuery, Jitsi, React.

Full Stack Engineer, Feelcommerce

Duration: Oct 2022 - Sep 2023

Summary: Project is a platform for consumer-seller video calls. It can be group calls, scheduled calls, etc. Site revision: work on the backend (Authorization with Cognito), video calls with AWS Chime, Redis, and Socket.io for matching, platform info storage

Responsibilities:

- Back-end development of a platform for consumer–seller video calls, supporting group calls, scheduled sessions, and core platform functionality.
- Implemented and integrated AWS services, including Cognito for authentication and AWS Chime for video call functionality.
- Implemented real-time matching and communication using Redis, Redis adapter, and Socket.io.

Technologies: AWS (S3, Chime, Cognito, ECR, ECS), PostgreSQL, Docker, Redis, Socket.io, React.

Back-end Engineer, Art Service

Duration: Aug 2021 - Oct 2022

Summary: A service that fully assists you in meeting art. This is a cultural spot that is unique to the region, including contemporary art and regional art.

Responsibilities:

- Back-end development of a cultural platform focused on contemporary and regional art, implementing core application logic and APIs.
- Added and maintained unit tests, improving code reliability and ensuring stable behavior of backend components.

Technologies: Node.js, Express.js, Typescript, Docker, Google Cloud, JEST, Node Clean Architecture, Stripe, OpenAPI, Prisma.

Back-end Engineer, Mojo 5

Duration: Jan 2021 - Aug 2021

Summary: Project is a platform for selling energy in Australia. Site revision: work on the backend (AWS Lambda), further plans are planned for other AWS services (RDS, ELB), and work with CRM HubSpot (now).

Responsibilities:

- Back-end development for an energy trading platform in Australia, working with serverless architecture based on AWS Lambda.
- Migrated selected backend features from Laravel to Node.js (Express.js) as part of the platform revision.

Technologies: AWS (S3, Lambda), DynamoDB, Aurora DB, Laravel, jQuery, Bootstrap.

Full Stack Engineer, Lawyers platform

Duration: Sep 2020 - Jan 2021

Summary: The platform for lawyers.

Responsibilities:

- Back-end development of a platform for lawyers, implementing core application logic and APIs.
- Designed the database architecture, structuring data models to support platform functionality.
- Implemented a separate service for calculations and report generation, using Node.js cluster module for parallel processing.

Technologies: Node.js, React.js.

Full Stack Engineer, xRay

Duration: Dec 2019 - Sep 2020

Summary: The project produces acceleration for Spark/Hadoop clusters in AWS and Azure. xRay sub-project provides detailed Spark job execution statistics; it provides Task-by-Task comparison with vanilla Spark execution results, with some feedback and recommendations. The project that analyzes Spark logs, extracts performance statistics, and compares them with the results of Hadoop realization. Results are displayed in a docx file with per-task comparison and statistics visualization. The project also deals with a web application that allows users to view a list of running clusters and provides a list of docx that are based on the results of analysis.

Responsibilities:

- Worked with AWS APIs to manage cloud resources and support Spark/Hadoop cluster acceleration, including infrastructure for data processing and reporting services.
- Implemented and managed CI/CD pipelines and AWS infrastructure, ensuring reliable deployment of backend services and web applications.

Technologies: Node.js, TypeScript, Express.js, Nest.js, Angular 6, PostgreSQL, AWS (SDK, RDS, EC2, SES, AMI), Jenkins, Nginx (proxy, load balancer), Docker, PM2.

Back-end Engineer, Serverless app

Duration: Aug 2019 - Dec 2019

Summary: Serverless app that helps with service authentication via salted hashes and RSA-based JWT keys.

Responsibilities: Back-end development of a serverless application for service authentication, implementing salted hash handling and JWT key management using RSA.

Technologies: Node.js, Serverless (AWS Lambda).

Back-end Engineer, Self-coaching project

Duration: May 2019 - Aug 2019

Summary: Australian self-coaching project, dealing with life spheres improvement.

Responsibilities:

- Back-end development for a self-coaching platform focused on life-sphere improvement, implementing core business logic and APIs.
- Contributed to project architecture, including database design and cloud infrastructure setup.

Technologies: Node.js, Jenkins, JavaScript, Typescript, Express, Nest.js, MySQL, Nginx.

Full Stack Engineer, HBC website

Duration: Feb 2019 - May 2019

Summary: HBC is a club website (invitation only) and stands for Horse Breeding Club. Is a private project that funds VIP racehorse breeding and takes care of high-quality animals.

Responsibilities:

- Full-stack development of a private Horse Breeding Club website, implementing both backend and frontend functionality.
- Contributed to project architecture, including database design and cloud infrastructure setup.

Technologies: Node.js, Nest.js, Typescript, Express.js, MongoDB, Docker, React.js, Redux.

Full Stack Engineer, Cryptocurrency project

Duration: Jul 2018 - Feb 2019

Summary: Selling of new cryptocurrency through various services (for now, we have two landing pages with information about the company, and a prototype for the new social app is in the process).

Responsibilities:

- Full-stack development for a cryptocurrency project, including backend and frontend implementation for landing pages and early social app prototypes.
- Implemented features for multi-signature transactions and added layers of application security.

Technologies: Node.js, Express.js, React.js, PostgreSQL, Docker.

Back-end Engineer, Cryptocurrency wallet

Duration: Jan 2018 - Jul 2018

Summary: Wallet for work with blockchain with difference coin (Bitcoin, THE, etc.). This app works both with API and local methods for transaction signature. This wallet has rules and multiuser approval for transactions. And general functionality for a crypto wallet. Development UI is part of the application.

Responsibilities:

- Back-end development of a multi-coin blockchain wallet, implementing transaction handling, multi-user approvals, and core wallet functionality.
- Implemented and managed cloud infrastructure on AWS to support backend services and storage.

Technologies: Node.js, JavaScript (vanilla JavaScript), Express.js, PostgreSQL, Mocha, AWS (S3, EC2).

EDUCATION

- **Kharkiv National Polytechnic University**
  Master's degree in Computer aided systems