

# [ MATT BOSEK ]

ENGINEERING LEAD | AI SEARCH, CRAWLING, DATA PLATFORMS, PRODUCT ENGINEERING

LOC

Wrocław, Poland

CONTACT

matt@mattbosek.com

NETWORK

linkedin.com/in/mattbosek

## > PROFILE\_DATA

Engineering leader with 15+ years of experience building SaaS products, internal platforms, and startup systems from zero to production. Combines hands-on architecture and coding with team leadership, hiring, delivery management, and pragmatic product partnership. Strong background in TypeScript/Node.js, React, AWS, distributed teams, and AI-augmented engineering workflows.

Recent work has focused on data-intensive products that combine crawling, monitoring, structured extraction, queue-based processing, AI enrichment, and search-oriented product delivery. Comfortable making architectural decisions under uncertainty, shipping quickly, and building engineering systems that stay maintainable as the company scales.

## > CANDIDATE\_SIGNAL (WHY I FIT)

- Built monitoring and ingestion systems that aggregate data from many sources, normalize it, deduplicate it, and turn noisy content into structured business signals.
- Delivered crawling and scraping infrastructure using browser automation, proxies, queues, schedulers, persistence, and failure recovery patterns.
- Applied LLMs in production workflows for extraction, classification, summarization, and turning unstructured text into usable product data.
- Worked on AI-first delivery models where automation is embedded across coding, QA, debugging, internal tooling, and operational workflows.
- Built SEO/GEO-ready web products with metadata strategy, JSON-LD, robots, sitemap, analytics, and content structures designed for search and AI visibility.
- Operate well in startup environments where speed, clarity, ownership, and technical judgment matter more than heavy process.

## > RUNTIME\_LOGS (RECENT PROJECTS)

### ENGINEERING LEAD / FRACTIONAL PRODUCT & PLATFORM OWNER

AI MONITORING, CRAWLING, SEARCH & AUTOMATION | 2025 - PRESENT

- Designed and shipped multi-source monitoring platforms combining website crawling, Facebook group scraping, alerting, dashboards, and operator workflows.
- Built browser-based scraping pipelines with Playwright/browserless patterns, residential proxies, session persistence, traffic optimization, anti-block handling, retry logic, and adaptive scheduling.
- Implemented queue-driven processing with Redis, BullMQ and RabbitMQ to separate collection, parsing, enrichment, and downstream delivery.
- Used OpenAI-based extraction pipelines to convert noisy, multilingual user-generated content into structured records with categorization, pricing, location matching, and data normalization.
- Built search-oriented and analytics-heavy products with aggregation, deduplication, relevance filtering, and notification workflows.
- Delivered SEO and GEO foundations on production sites through metadata design, JSON-LD structured data, sitemap/robots management, canonical setup, analytics instrumentation, and AI-oriented content positioning.

- Worked as a true player-coach: architecture, implementation, release management, product collaboration, delivery planning, and technical decision-making in one role.

### **LEAD SOFTWARE ENGINEER | NOKS.COM**

12/2023 – 01/2025

- Led design and development of an AI-powered DeFi trading platform combining on-chain analytics with real-time sentiment intelligence.
- Built multi-agent systems using RAG, LangChain, and LangGraph for market reasoning, trading signal generation, and strategy optimization.
- Designed secure custodial wallet infrastructure with AWS KMS and sandboxed environments for strategy backtesting.
- Built autonomous trading workflows integrating LLM decision models with DeFi protocols and execution logic.

### **CHIEF TECHNOLOGY OFFICER | UNIQLY.IO**

12/2020 – 09/2023

- Led architecture and delivery of a blockchain platform connecting NFTs with physical products through a digital-twin model.
- Built scalable smart contract architecture across multiple networks using ERC-721, ERC-1155, and ERC-20 standards.
- Oversaw APIs and platform services connecting wallets, QR/RFID/NFC-enabled wearables, ticketing, loyalty, and identity use cases.
- Grew product and engineering execution around a category-defining startup recognized in Malta as Best NFT Startup 2021.
- Delivered multi-chain deployments with more than 50K verified assets and live integrations with major NFT marketplaces.

### **BRANCH MANAGER | MATICSERVICES.COM**

06/2019 – 12/2020

- Built and managed a 16-person cross-functional engineering and operations team across Poland, Dubai, and Lebanon.
- Established delivery processes, collaboration standards, hiring structure, and performance KPIs for distributed execution.
- Owned operational planning, budgeting, recruitment, and cross-regional alignment across technical and business teams.

### **LEAD SOFTWARE ENGINEER | PROPERTYFINDER.COM**

04/2018 – 06/2019

- Contributed to UAE's largest real estate marketplace, building scalable frontend and backend systems with React, Next.js, and TypeScript.
- Led modernization of internal tools and migrated legacy workflows toward modular, API-driven applications.
- Improved engineering quality through stronger CI/CD, code quality standards, and performance-focused delivery practices.

### **TECH LEAD | HSBC GLOBAL DELIVERY CENTER**

02/2017 – 04/2018

- Led a global engineering initiative spanning 20+ direct contributors within a broader 150-developer program.
- Delivered three enterprise-grade products across six international markets.
- Coordinated engineering execution across product, compliance, DevOps, and distributed delivery teams.

```
> init --module earlier_experience
```

Worked across commercial and startup projects in full-stack development, product delivery, and early cloud adoption (2012 – 2017), building the technical base that later supported large-scale product and leadership roles.

## > SYSTEM\_ARCHITECTURE (CORE EXPERTISE)

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[ **LEADERSHIP & DELIVERY** ] Engineering leadership, technical strategy, hiring, mentoring, architecture ownership, cross-functional product partnership, distributed team management, roadmap execution, delivery under uncertainty.

[ **AI & DATA PRODUCTS** ] LLM integrations, OpenAI/Anthropic ecosystem, RAG, agent workflows, structured extraction, AI automation, data enrichment pipelines, AI-native delivery practices.

[ **CRAWLING, MONITORING & SEARCH** ] Web scraping, browser automation, crawler design, proxy-based collection, anti-bot resilience, deduplication, scheduling, ingestion pipelines, search/filter systems, alerting, analytics workflows.

[ **WEB & BACKEND** ] TypeScript, Node.js, Nest.js, Next.js, React, REST APIs, GraphQL, webhooks, event-driven services.

[ **INFRASTRUCTURE** ] AWS, Docker, CI/CD, Redis, RabbitMQ, PostgreSQL, MySQL, NoSQL, OpenSearch, monitoring, production operations.

## > DIAGNOSTICS (TECHNICAL HIGHLIGHTS)

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- Built adaptive scraping schedulers that adjust crawl frequency based on content activity, reducing waste while keeping fast-moving sources fresh.
- Implemented Redis- and database-backed deduplication to prevent repeated processing and improve downstream signal quality.
- Used LLM pipelines to transform raw scraped text into normalized entities and structured datasets ready for search, filtering, and reporting.
- Designed worker-based architectures that separate downloading, parsing, enrichment, and notification layers for reliability and scale.
- Built lean production infrastructure on AWS and Hetzner with pragmatic build-vs-buy decisions appropriate for startup-stage products.
- Shipped user-facing search and monitoring products, not just backend infrastructure: filters, dashboards, alerts, and analytics loops for end users and operators.

```
> scan.stack --targets
```

```
TypeScript, Node.js, Nest.js, Express.js, React, Next.js, GraphQL, REST, PostgreSQL, MySQL, NoSQL, Redis, RabbitMQ, OpenSearch, AWS, Docker, CI/CD, monitoring, OpenAI, Anthropic, LangChain, LangGraph, LlamaIndex, Vercel AI SDK, RAG, agent orchestration.
```

```
> verify.delivery --mode player_coach
```

```
Player-coach engineering lead who sets direction, removes ambiguity, raises engineering standards, and still goes hands-on where speed or architecture quality requires it. Strong fit for early-stage and growth-stage teams that need one person to connect product thinking, technical execution, and a high-accountability engineering culture.
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