Antoni Nowak

Senior Software Engineer

✉ AntoniNowaks@proton.me ✈ miraclesprime 📍 Warsaw, Mazowieckie, Poland

in linkedin.com/in/antoni-nowak-64b4b9312 ○ github.com/devmaster116 📞 +48 693 248 517

SUMMARY

Senior Full-Stack Engineer with 10+ years of experience building production-grade applications using Python (FastAPI, Django, Flask), PyTorch, and modern JavaScript frameworks including React, Angular, and TypeScript. Deep expertise delivering end-to-end features across backend services, REST/GraphQL API design, front-end interfaces, relational databases, CI/CD workflows, and cloud-native environments including AWS,Azure, and GCP.
Skilled in designing scalable FastAPI services, building responsive React UIs, optimizing PostgreSQL/MySQL schemas, and implementing unit, integration, and performance tests to ensure high reliability across complex systems. Experienced integrating AI/LLM-driven features, prompt-based workflows, embeddings, and ML inference services with PyTorch.
Strong experience in code collaboration workflows including pull requests, code reviews, and merging in team environments.
Proven ability to own functionality across the full SDLC—architecture, development, testing, deployment, and production support—in long-running enterprise environments.

TECHNICAL SKILLS

Core Languages
Python,Go,JavaScript, TypeScript,Shell Scripting

Backend & Supporting Knowledge
FastAPI, Django, Flask, PHP, Node.js, GraphQL, Microservices Architecture.

Databases
PostgreSQL, MySQL, MongoDB, Redis, FireBase.

Frontend Development
HTML, CSS, React, Next.js, Redux Toolkit, Vue, Nuxt, Angular(2+), Shadcn/ui, Sass,BootStrap

Cloud & DevOps
AWS, GCP, Azure, Docker, CI/CD pipelines, Cloudflare, Vercel, Netlify.

Tools&Testing
REST APIs, GraphQL, Github, GitLab, Bibbucket, Npm, Webpack/Vite, Figma, Jest, Mocha, Cypress

PROFESSIONAL EXPERIENCE

Bitoro Labs, *Senior AI/ML Software Engineer* 2024 – Present | Remote

- Led the development of scalable backend systems using Python and Go, designing secure and high-performance solutions for HR management, payroll processing, and tax compliance functionalities. Streamlined workflows for employee benefits and real-time payroll calculations.
- Integrated internal engineering tools with Slack and Glean to improve team collaboration, automate workflows, and enhance knowledge search efficiency.
- Designed and implemented RESTful and GraphQL APIs, ensuring clear contracts, security, and performance.
- Designed and implemented microservices architectures embedding Python-based predictive payroll and tax-compliance models, delivering real-time forecasting, error detection, and intelligent recommendations across HR systems.
- Migrated critical datasets to AWS S3 and Azure Data Lake Gen2, implementing ETL processes with Azure Databricks and AWS Glue to power downstream machine learning training and analytics.
- Developed and optimized RESTful APIs to serve ML inference requests for benefits recommendation engines, improving response times by 30% and ensuring secure access via OAuth2/JWT.
- Implemented automated CI/CD pipelines using Jenkins and GitLab CI/CD—integrating unit, integration, and performance tests—and built highperformance data transformation layers with Apache Arrow to accelerate serialization and reduce cross-language overhead for ML pipelines.
- Containerized microservices and ML inference services with Docker, orchestrated on AWS EKS and Azure AKS using Helm charts, enabling zerodowntime updates and horizontal autoscaling.
- Collaborated with data science and compliance teams to define SLAs for model accuracy, data freshness, and security, conducting monthly retraining cycles to maintain predictive performance above.

Freelance (Self employed), *Data Scientist/ML Engineer* 01/2020 – 04/2024 | Remote

- Engineered microservices in Python and Go to integrate TensorFlow- and PyTorch-powered fraud detection models into payment workflows,reducing false-positive rates.
- Developed Angular and React dashboards in TypeScript to visualize real-time transaction anomaly scores, enabling operations teams to investigate suspicious activity within seconds.
- Designed GraphQL and RESTful APIs secured with OAuth2/JWT to serve AI-driven KYC/AML compliance checks, streamlining identity verification for over 10 million users.
- Integrated internal engineering knowledge workflows with Slack and Glean to enhance team collaboration, automate operational alerts, and improve searchability of model documentation and service runbooks .
- Automated end-to-end ML model deployments using Docker, Kubernetes, and Seldon Core on AWS EKS, achieving zero-downtime releases and consistent rollback strategies.
- Collaborated with data science teams to integrate PyTorch anomaly detection models into backend services, optimizing throughput and inference performance.
- Instrumented full-stack services with OpenTelemetry, centralized logs in an ELK stack, and configured Grafana alerts for model latency spikes and pipeline backpressure.
- Ensured PCI-DSS and GDPR compliance by implementing encryption at rest/in transit, role-based access controls, and comprehensive audit logging across all ML endpoints.
- Contributed to internal open-source libraries for ML integration, authoring Jest and Cypress test suites to validate input sanitization and enduser UI flows.

- Built ETL pipelines using Apache Arrow to standardize data across healthcare systems and developed Rust utilities to optimize parsing and anomaly-detection preprocessing, significantly improving throughput and interoperability across Python, Go, and Spark workflows

Upwork, *Freelance Web Developer*   07/2014 – 12/2019 | Remote
- Developed and maintained responsive frontend applications with React, Angular, and TypeScript, creating user-friendly web interfaces.
- Worked closely with UX/UI designers to transform wireframes and mockups into functional interfaces for both desktop and mobile.
- Enhanced UI consistency by contributing to shared component libraries and reusable design patterns.
- Assisted in backend integrations using Node.js and Python and supported CI/CD workflows with GitHub, GitLab, and Bitbucket.
- Engaged in testing using Jest, Mocha, and Cypress, collaborating with designers through Figma.

EDUCATION

Jagiellonian University, *Bachelor of Computer Science*   2010 – 2014 | Kraków, Poland
Coursework: Algorithms, Data Structures, Databases, OS, Networking

CERTIFICATES

Professional JavaScript Developer Certification
04/2023 World Wide Web Consortium (W3C)

Data Engineer(Associate)

Front-End Web Development Techdegree
08/2020 Treehouse