BOHDAN KOVAL

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SENIOR SOFTWARE ENGINEER, TECH LEAD

Senior Software Engineer with 7+ years of commercial experience and academic background in Computer Science. Proficient in creating performant, scalable, and reliable web-based software products with experience delivering end-to-end solutions, e.g. Front-end, Back-end, and DevOps. 3+ years of technical leading expertise, mentoring, and supporting vertical (product-oriented) teams of 3-7 engineers. The portfolio includes implementing and maintaining high-load software products, with a total user base of millions of users and thousands of daily active users, integrating the solutions into complex tech systems.

WORK EXPERIENCE

Netflix   Hybrid · Full-time
Senior Software Engineer (L5)   Aug 2023 - Present

Part of Studio Production Engineering, which builds unified, global, and digital products and services used by internal and external creative partners producing and managing global content. Products enable the entire content production workflow, from pitch to play, and provide innovative new ways to develop and manage entertainment at scale.

- Designed and implemented a new version of a cloud storage solution, which allows uploading/downloading, managing, and sharing production and post-production artifacts (footage, dubbing, subs, etc.), leveraging web-based (browser) UI and standalone desktop application for data transferring.
- The software is being used by partners in 50+ countries with an increasing number of ~5k unique monthly users and ~1M total monthly visits (stimulating partners to migrate from other 3rd-party solutions to the Netflix-owned one).
- Designed and developed a new version of Cuts delivery flow (using which partners deliver finalized assets to Netflix), improving file validation, error management, assets releasing, and delivery process transparency.
- The updated flow decreased the post-production phase by 2 weeks, improving the cost-efficiency and robustness of the process.
- Helping scope, estimate, and prioritize between conflicting needs.
- Participating in on-call rotation and contributing to incident reviews.

Skills: Software architecture, system design, cloud solutions, JavaScript/TypeScript, React, GraphQL, Node.js, CI/CD.

TUI   Remote · Contract
Expert Software Engineer (L6)   Sep 2021 - Jul 2023

Staff-level software development engineer, providing solutions for TUI - a leisure and travel Fortune 500 company.

- Being a lead engineer of the vertical software engineering team of 7 members, which is responsible for TUI's search features.
- Full-cycle software engineering, incl. Front-end, Back-end, and DevOps, following microservices approach, incl. micro-frontends. Contributed to 10+ end-to-end solutions.
- Designed and developed a CQRS system for indexing and querying data, which resulted in an average performance boost of 71%, and provided the ability to implement product features, which were not possible before because of previous architecture design restrictions and coupling.
- Designed high-load parallel data processing, leveraging the Fan-Out pattern, battle-tested on 100+ parallel processes.
- Owning infrastructure (via IaC) and CICD process, site reliability, monitoring, reacting to prod incidents, and reduced cloud provider cost by 180%.
- Presented 5 technical solutions at internal architectural group meetings.

Skills: Software architecture, system design, cloud computing (20+ AWS products), TypeScript/JavaScript, Node.js, Python, Gitlab CI, IaC (CDK, Terraform), GraphQL, REST, e2e/integration/unit testing.

AgileEngine   Remote · Contract
Lead Software Engineer (L6)   Feb 2021 – Aug 2021

Solutions architecture and system design practices. Got promoted to this role after showing successful results in the previous one.

- Scaled and maintained the product's software architecture based on cloud technologies.
- System analysis, requirements analysis, and release management. Supervised 13 deployments to production.
- Directed tech communication on dedicated meetings with external vendors, integrated with Google products (News, Pay, etc.)

Skills: Cloud computing (AWS), Database design, UML, Software design patterns.

Senior Software Engineer (L5)   Jun 2019 – Jan 2021

Provided full-stack development services, worked as part of a dedicated team on 2 projects: a Seattle-based healthcare communications start-up, and a Toronto-based news and media publishing platform.

- Improved web vitals by 70%, migrated 200k records production database and refactored auth flows per best practices.
- Refactored & reworked the subscriptions (payments) flow, incl. required compliances.
- Established newsletters management and mailing solution with 100k+ daily consumers and 1k+ items.
- Picked up team-leading activities in a team of 3-5 engineers, and held software engineering best practices meetings.
- Conducted 80+ technical interviews.

Skills: TypeScript/JavaScript, Node.js, Docker, MongoDB, React, Jest, AWS.

airSlate
Software Engineer

<div style="text-align:right">On-site · Contract
Aug 2018 – Jun 2019</div>

Middle-level front-end engineer, development of no-code document workflow automation service.

- Worked as part of auth team, which was responsible for authentication and authorization, audit trail, team management, etc.
- Introduced and prepared performance and security improvements leveraging server-side rendering.
- Became a webpack expert: boosted compilation time by 120%, adjusted tree shaking, compression, etc., what's been later applied not only in our team but product-wise.
- Mentored 2 junior engineers, advised scrum best practices in the team.

Skills: JavaScript, React, Redux, webpack.

SoftServe
Software Engineer

<div style="text-align:right">On-site · Contract
Oct 2017 – Aug 2018</div>

Middle-level front-end web engineer, development of UK-based telecom retail and services platform.

- Developed web components for browsing, searching, and purchasing telecom products (broadband, TV, phone, etc.).
- Documentation owner: reviewed contributions to docs, general overview of docs health for a team of 4 members.
- Unit and E2E tests: increased test coverage from 45% to 80%.
- Created time-proofed solutions, which still operate in production after 5 years of deployment (at the moment of writing).

Skills: TypeScript, browser-native custom elements, HTML, CSS (SASS), Jest, Selenium, Cucumber.

EDUCATION

Taras Shevchenko National University of Kyiv

Master's degree, Computer Science   Sep 2019 - May 2021

Specialization in Data Science
Thesis: Automated information systems for fraud analysis and detection in payment services
Author of 9 scientific articles, related to the thesis. Spoke at 4 science conferences.
Google Scholar profile: https://scholar.google.com/citations?user=1f3e-lMAAAAJ
Scopus profile: https://www.scopus.com/authid/detail.uri?authorId=57200141737
Courses include: Machine Learning, Neural Networks and Deep Learning, Big Data, Cloud Technologies, Text Mining, Data Visualisation, Project Management

Bachelor's degree, Economic Cybernetics   Sep 2015 - Jun 2019

Application of math and IT in researching and modeling economic systems
Thesis: Fraud detection models and payment transactions analysis using machine learning
Courses include: Linear Algebra, Calculus, Probability Theory, Mathematical Statistics, Operations Research, Informatics, Databases, Data Mining, Decision Support Systems, Econometrics

SKILLS

Computer science: Data structures & algorithms | Concurrency | System Design | Software Architecture | Distributed Systems
Programming languages: TypeScript | JavaScript | Python
Cloud computing: Amazon Web Services (Lambda, SQS, SNS, S3, DynamoDB, and 20+ others) | Google Cloud Platform
Software development: back-end (Node.js) | front-end (React.js, Vue.js, compilers, bundlers) | data processing

Databases: SQL | NoSQL (key-value, document, graph)
Client-server: REST | GraphQL | WebSockets
DevOps: Infrastructure-as-Code | Continuous Integration | Containerization (Docker) | High Availability & Fault Tolerance
Testing: unit, integration, end-to-end; TDD, BDD
Leadership: cross-functional technical leading | decision making | mentoring | interviewing | tech solutions presenting

CERTIFICATIONS

- AWS Certified Solutions Architect - Associate (Dec 2022) (credly.com/badges/d4bf110a-33a7-42c9-80ba-42427db2013d)
- AWS Certified Developer - Associate (Dec 2022) (credly.com/badges/98e58b34-fd6d-4408-b4ae-5b3b702ce1f5)

PROJECTS

OpsCanvas
Participation in engineering a web-based drag-and-draw tool for composing and managing cloud infrastructure. Provides a beginner-friendly UI to create, modify and view the most popular cloud-provided resource, a simplified and cloud-agnostic version of CloudFormation Designer. Powered by Terraform and Kubernetes.

CUE Audio
Assistance in developing CUE5050 - a charity raffle fundraising platform, which is being used on sports/entertainment events for fan engagement. Powers Bristol Motor Speedway events.

Deskree
Technical consulting and advising on the development of a no-code backend solution, which allows to setup and deploy CRUD backend with auth, analytics, monitoring, and integrations with Slack, Shopify, Stripe, etc. Partnered with Google Cloud Platform.

Federated modules web app starter
A packed collection of best practices (approaches and tools), which were compiled and structured by me, and resulted in a bootstrap template to init front-end web app. Source code: https://github.com/bohkoval/federated-modules-monorepo-starter