Dmitriy Krantsberg

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PROFESSIONAL EXPERIENCE

Axle Informatics / NIH (NCATS) | Rockville, MD

Lead Software Engineer | Jul 2018 – Present

- Lead rearchitecture of the SMART IRB platform, consolidating two legacy NIH systems into a unified, modern solution supporting IRB reliance processes; managed data modeling, REST APIs, OAuth security, Adobe Sign integration, and performance tuning, significantly improving platform usability for Harvard University and NIH users. Technical stack: NodeJS. Nest.JS, NX, PostgreSQL, AWS (S3, EKS, SES, X-Ray), Angular

- Spearheaded overhaul of NCATS (National Center for Advancing Translational Sciences) Compound Management (CoMa) system, tracking millions of chemical compounds for drug discovery; leveraged Node.js, Nest.JS, Angular, NX, AWS, Micro frontends, Python, PostgreSQL, Auth0, and Kubernetes to optimize operational performance and reliability, enhancing research efficiency.

- Architected NIH's Metadata Services (MDS) multi-tenant platform used for managing diverse scientific metadata across various data stores including MongoDB, MySQL, and SharePoint; led a team of five developers, performed code reviews, and mentored junior developers, ensuring maintainability and scalability of the framework.

Gannett Inc. / USA TODAY Network | McLean, VA

Senior Developer | Jan 2012 – Jun 2018

- Delivered highly scalable backend system powering USAToday.com and 200+ media outlets; implemented event-sourced CQRS architecture for digital content management, achieving significant improvements in read-performance and content delivery reliability. Tech stack: Node.Js, NoSQL, RabbitMQ, Apache Solr, AWS, GCP, microservices
- Designed and deployed high-performance public-facing APIs providing real-time election poll data for the 2016 presidential election; used Node.js and Couchbase NoSQL databases, ensuring high availability for millions of concurrent users on election night.
- Enhanced legacy .NET CMS system, developed REST APIs, and optimized SQL Server schemas, improving publishing workflows for journalists and editors nationwide.

DMI, Inc. | Bethesda, MD

Senior .Net Developer / Team Lead | Mar 2011 – Dec 2011

- Led development of Integrated Partner Management system for U.S. Dept. of Education, managing eligibility applications and financial audits for Federal Student Aid;

supervised 4 developers, conducted detailed technical analysis and proof-of-concepts using C#, WCF, Entity Framework, and SQL Server, ensuring compliance with rigorous government standards.

PRIOR EXPERIENCE

Envision EMI, LLC – Software Engineer | Dec 2006 – Mar 2011

SallieMae, Inc. – Web Developer | Jun 2003 – Nov 2006

WebWorld Studios Inc. – Web Developer | Jun 2000 – May 2003

SKILLS

Architecture/Design: Microservices, Micro Frontends, Event Sourcing, CQRS, REST APIs, GraphQL, OAuth, Auth0

Cloud/Containers: AWS (RDS, S3, EKS, CloudWatch, X-Ray, SES, SQL, SNS), Docker, Kubernetes, Helm, Terraform

Programming: Node.js, TypeScript, JavaScript, C#, .Net Core, PHP, Python

Frameworks: NodeJs. Nest.js, NX, TypeORM, Next.js, .Net Core, Entity. Framework, FastAPI, Spring Boot.

Frontend: Angular, RxJS, React/Redux, Micro Frontends

Message brokers: RabbitMQ, SQS, Redis (Pub/Sub)

Databases: PostgreSQL, MongoDB, MySQL, SQL Server, Redis, Oracle, Dataverse

CI/CD & DevOps: GitHub Actions, Jenkins, Azure DevOps, TeamCity, Grafana k6, OpenTelemetry, DataDog

Leadership: Agile methodologies, code reviews, mentoring, stakeholder communication

EDUCATION

George Mason University – MBA / Information Technology | 2005

Moscow Power Engineering Institute – B.S. Computer Science (GPA: 3.91/4.0) | 1998

CERTIFICATIONS

AWS Certified Solutions Architect (SAA) | 2023

Microsoft Certified Solutions Developer (MCSD, MCSA) | 2016

Sun Certified Java Programmer (SCJP) | 2008