Dmytro Brazhnyk

Software Architect/Principal Software Engineer

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- Extra ordinary abilities in Computer Science, Mathematics and Natural Sciences.
- Master's degree in Artificial Intelligence.
- 16 years of experience in development of IT technologies
- 14 accomplished releases in leading roles
- Hands-on experience of designing and implementing of solutions in following areas:

  Backend, Cloud, Microservices, DevOps, Security Engineering, Reliability Engineering, Data Architecture, High-Loaded Systems, Highly Performant Systems, Cost-Effective, Near Real Time solutions, Quality Architecture, Artificial Intelligence, Machine Learning, Frontend solutions.

- Recent accomplishment: Adopted AI model to predict wellbore equipment malfunctioning.
- Another recent accomplishment: Reduced the cost of CosmosDB usage from $960 000 a year to $48000 a year.

ДИПЛОМ

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ

НАГОРОДЖУЄТЬСЯ

ДИПЛОМОМ ІІІ СТУПЕНЯ

БРАЖНИК ДМИТРО ВОЛОДИМИРОВИЧ,

студент Харківського національного університету радіоелектроніки

ПЕРЕМОЖЕЦЬ
ВСЕУКРАЇНСЬКОЇ СТУДЕНТСЬКОЇ ОЛІМПІАДИ
З ІНФОРМАТИКИ

Міністр С.М.Ніколаєнко

Наказ від 07.09.2005р.
№ 518

Translation

MINISTRY OF EDUCATION AND SCIENCE
OF UKRAINE

AWARDED
3rd PLACE DIPLOMA

BRAZHNYK DMYTRO VOLODYMYROVYCH,
Student of Kharkiv National University of Radio Electronics

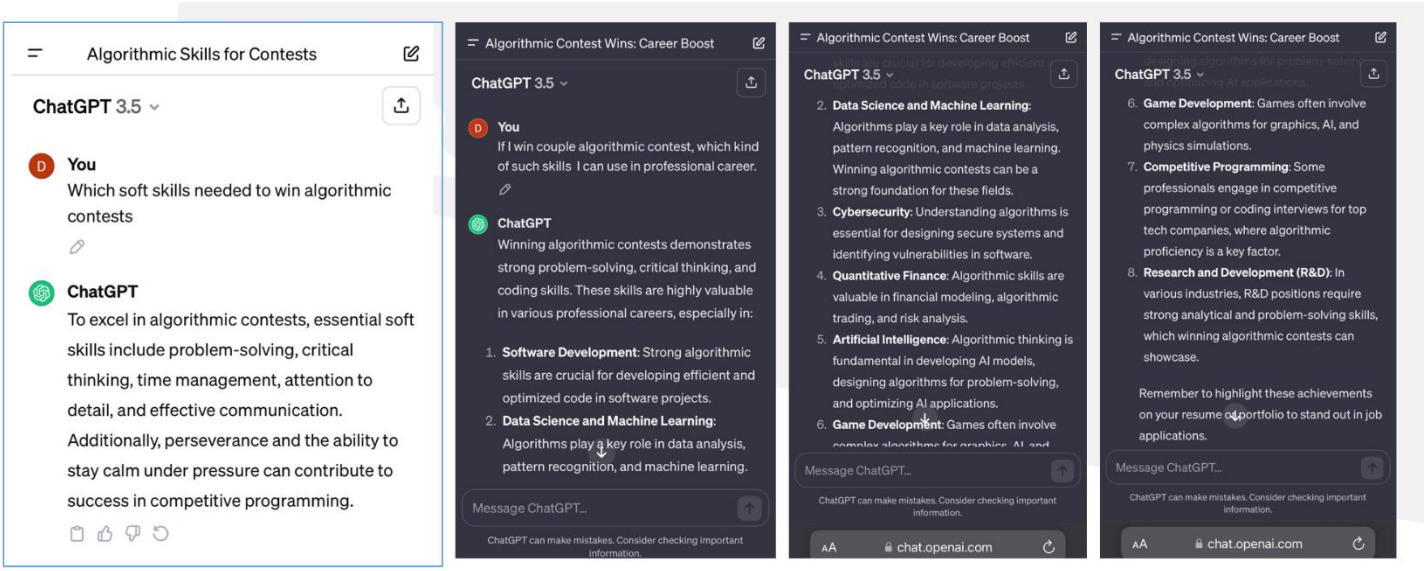
WINNER OF
THE ALL-UKRAINIAN STUDENT
COMPUTER SCIENCE OLYMPIAD

Minister of Science and Education:
S.M. Nikolayenko

Order dated 07.09.2005
No. 518

Leadership Developed in Competition:

- The competitiveness of my soft skills has already been challenged in contest.
- Skillset analysis by ChatGPT AI of award above provided:



In addition to that I can add that I am a supportive person and committed to upholding the highest stand of integrity.

Employment Summary

- Architect/Cloud Developer at Mastech Digital, May 2023 – now
- Cloud Software Architect at Carbo Ceramics, Jan 2023 – May 2023
- Solution Architect at EPAM, Sep 2012 – Jan 2023
- Lead Software Engineer at Astound Commerce, Jan 2012 – Sep 2012
- Lead Software Engineer at TeamDev, Sep 2008 – Jan 2012
- Java Software Engineer at SoftLine, Apr 2007 – Sep 2008

Career Experience

Mastech Digital – pods.com — Jan 2023 – Apr 2023

Architect/Cloud Developer

Joined as Azure cloud architect/developer, to build Microservice platform from ground in Azure cloud using cloud native technologies. Led a cross-function team built of QA automation, DevOps, Java engineers, DBA, Monitoring team from day zero till production release.

- Made a discovery and proposed a technical design with Azure Cloud stack.
- Implemented most critical party and documented detailed playbooks with script for IT departments and DevOps to deploy system into cloud.
- Leveraged Azure ADF ETL solution to run the initial data bootstrapping and subsequent data quality analysis.
- Provided guidance about best practices for performance and system security.

Carbo Ceramic Inc/StrateGen — Jan 2023 – Apr 2023
Chief Architect

Directed project discovery, collaborating with stakeholders to identify key opportunities, leading a team of 15 engineers. Conducted a thorough software architecture review, uncovering critical risks jeopardizing data security and privacy. Negotiated budget allocation based on risk assessment and company constraints. Addressed concerns and quality attributes in the roadmap: DR/BCP, security, availability, reliability, performance, and usability.

- Saved $60K a year - by reviewing cloud resource utilization and down-scaling allocated capacity.
- Saved $200k/year in enterprise software costs by proposing cost-effective MicroServices and Cloud Native solutions.
- Presented findings to the CEO, prioritized risks, and created a proactive roadmap for long-term stability.
- Made impactful technical decisions: enhanced cloud security, implemented best practices, and executed data migration from SQL Server to MongoDB.
- Trained AI/ML models to predict equipment failures.

EPAM - Walmart — Apr 2020 – Jan 2023
Key Engineer/Architect

Joined as the Architect/Key Engineer, driving the replacement of legacy software with highly scalable and reliable services. Managed a colossal 3TB database, effortlessly processing 150 million daily updates, including rapid spikes within 30-60 minutes. Enforced exceptional data quality in this mission-critical system, handling massive data volumes.

- Reduced the cost of CosmosDB processing from $960 000 a year to $48000 a year, by introducing a set of practices like auto-scaling, scale scheduling, batch processing, and doing proper data modeling.
- Spearheaded the implementation of groundbreaking services from scratch, leading the team to success.
- Pioneered a service prototype for seamless team-wide adoption.
- Orchestrated end-to-end solutions, meticulously overseeing project deployment and maintenance.
- Successfully deployed and managed an entire service cluster, flawlessly handling the massive load of 150 million daily updates.
- Slashed hardware costs by a staggering 10x, leveraging auto-scaling and optimizing data modeling during idle database periods.
- Enforced top-notch coding practices like TDD and Peer-review.
- Crafted an unyielding service framework, effectively separating business code from infrastructure intricacies.
- Established real-time monitoring, ensured NFR compliance, and implemented rigorous quality processes, impressing stakeholders with system stability.
- Adopted big data stack to implement meticulous data quality processes, guaranteeing system reliability and proactive monitoring.
- Authored impactful technical documentation, comprehensive architecture documents, and insightful business analysis.

EPAM - Anadarko — Mar 2019 – Apr 2020
Tech Lead/Architect

Extended Microservice framework with OAuth support for authentication/authorization. Re-architected a core component in the IoT system to enhance reliability.

- Developed an extension to integrate services with Microsoft Azure AD and OAuth in the Company Java framework.
- Identified critical vulnerabilities in the open-source Microsoft OAuth SDK.
- Resolved a year-long issue with the Connection Pool setup, saving 20 hours per month.
- Optimized interaction with MS SQL Database through batch processing and query rewriting.
- Achieved real-time SLA of <5 minutes, eliminating lag times of hours or days.
- Implemented system metric monitoring, alerts, and presented KPI improvements to stakeholders.
- Reworked application integration with RabbitMQ, introducing architecture patterns like DeadQueue and Priority pools.
- Improved integration with 3rd-party service through client-side throttling, ensuring stability.

- Ensured months of system stability without downtime, eliminating daily server downs.
- Enhanced application core/thread/pod scalability.
- Improved application processing reliability and introduced real-time monitoring of data quality.
- Optimized data gap analysis for better performance.

EPAM - Vanguard **Sep 2018 – Mar 2019**
Solution Architect

Led Vanguard's digital transformation. Developed a comprehensive plan and roadmap for migrating existing Monolithic applications into Microservices.

- Led a team to prototype a new Microservices-based platform for future migration.
- Successfully sliced the first set of Monolith into Microservices under the team's leadership.
- Resolved critical performance and reliability issues.

EPAM – Datalex, Ukraine **Apr 2016 – Sep 2018**
Scrum Master/Development Lead

Re-architected a heavily over-engineered EJB/JBoss monolith system, 10 years old with 400 engineers constantly pushing to the same repository and supporting 50 customizations for different customers.

- Built a core team of six developers in the Kharkiv office and scaled up to 50 people.
- Contributed towards team execution of two impactful releases for COPA and JetBlue airlines, delivering valuable solutions and driving positive outcomes for both organizations.
- Developed training space and documentation for newcomers.
- Established Agile process for distributed L3 Support and served as Scrum Master.

Education Summary

- Master's degree in Artificial Intelligence
  Kharkiv National University of Radio Electronics, Ukraine, 2017

- Bachelor's degree in Computer Science
  Kharkiv National University of Radio Electronics, Ukraine, 2009

Awards

- 2014 - Hackathon - best computer game award for Quantum game (Led a team to success)
- 2005 – 3rd place(bronze) award in country wide Student Olympiad in the discipline "Informatics" in the category of computer
- 2003 - 1st place award in regional Informatics Olympiad for 11th school grade.
- 2003 - Selected as the top 15 best in Kharkiv Oblast Informatics Olympiad before the All-Ukraine stage.
- 2002 - 1st place award in regional Informatics Olympiad for 10th school grade.
- 2001 - 3rd place award in regional Informatics Olympiad for 9th school grade.

Training & Certifications

- 2019 - CloudFroundry on edX
- 2018 - Certified AWS Solution Architect
- 2018 - AWS Solution Architect Udemy online courses
- 2018 - EPAM Software Architecture School training
- 2011 - Demandware ecomm training

Technical Proficiencies

Languages	Java, Kotlin, Scala, JavaScript, Python, C++ and Rust Lang. Markup languages: JSON, XML, YAML, MD, etc. Basic knowledge: Assembler x86, C#.NET, WSDL, Pascal, VB6.
Data Architecture:	RBDMS DBA, specifically PostgreSQL. Experienced in NoSQL data modeling and optimization (particularly Cosmos DB), Oracle, MySQL, SQL Server, MS SQL, MongoDB, Cassandra, Elastic Search, Redis, Gemfire. Spark, Confluent, Flink, ETL Talend, Azure Data Factory.
Cloud Architecture:	Certified AWS SA Architect. Experience with Azure. Deep knowledge of Kubernetes, etc. Azure Blob, AWS S3, AWS DynamoDB, Azure Databriks, AWS EC2, Azure AKS, AWS SQS. Docker. PaaS, Pivotal Cloud Foudnry, AWS Lambda, Heroku, 12 factor application.
Front-End Architecture:	Swing, HTML, CSS, ReactJS, Angular, TypeScript, WebRTC, WebGL(GLSL) and WebSocket.
Back-end Architecture:	Spring Boot, Struts MVC, Spring MVC, Spring Data, Hibernate, JPA, MyBatis, J2EE, JAX-RS, sl4j, JDBC, REST API, Swagger, GraphQL, ProtoBuf(gRPC), SOAP, Camel ESB, Junit, Mockito, EasyMock,
Microservices	Spring Boot Cloud, Kubernetes, Docker, Linkerd, Istio
CI/CD/IaaC:	Jenkins, Helm, Terraform, SonarQube, Fortify, Git, GitHub, GitLab, BitBucket, SVN, Mercurial
System Monitoring:	ELK(ElasticSearch/Logstash/Kibana), Grafana/Prometheus, Splunk
Cyber Security:	JWT/JWE, SAML, OAUTH, OWASP TOP 10, CVE SCANS, X509, mTLS, Cloud Security, Azure WAF, Azure Defender
AI/ML/Computation	Eigen, numpy, TensorFlow, Jupyter Notebook, Azure ML.
Rust stack	serde, serde-json, actix-web, azure_core, azure_data_cosmos, tracing, tracing-actix-web
C++ stack	stl, atl/mfc, zeromq, boost, opencv, ffmpeg, GTest, protobuf, OpenGL(glfw, glew), DirectX, CMake
Methodologies	Agile, Scrum, Kanaban, TOGAF, TDD, XP, CI/CD, UML, C4 model.