Nasr Kasrin (Dr.)

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Software architect with a critical eye and open mind. I led successful projects in various domains (data management, social networks, mobile apps & games, robotics & AI) and teams sizes (2-5 persons), from B2C settings to publicly projects with several million in funds. I shine on the intersection of engineering and product/people/cross-functional leadership [n42r.github.io]

Projects

- 2023 2024 Muze AI, Open Source Software, Independent Project
 - Conceived and built the first AI/LLM music recommendation tool that does not use Spotify's metadata [github.com/n42r/muze-ai]
- 2022 2023 **Guestrrday**, *Open Source Software*, Independent Project
 - Developed an open source music tagging tool that successfully processed over 20,000 items [github.com/n42r/guestrrday]
- 2019 2023 The Basin Network, Architectural Model/Invention, Doctoral Project
 - Invented a novel architectural pattern for data cataloging that is more transparent and detailed than state-of-the-art approaches such as data mesh and data lake.
 - Balanced the architecture for data exchange, interoperability, integration, collaboration, standards development, and managing data as an asset.
 - O Defended the project and was awarded a PhD with grade of cum laude (with praise).
 - Published 2 papers in international conferences.
- 2015 2019 **SIMUTOOL**, SaaS (B2B), EU-Funded Manufacturing Project
 - Led a team of four to develop a data lake SaaS for a 8-company EU project which enabled close data-driven cooperation and coupling between participating companies [github.com/simutool].
 - O Communicated & collaborated with domain experts to identify requirements.
 - Designed a scalable architecture as well as interfaces, APIs, and data formats.
 - Developed software and led developers using agile methods to build smoothly integrated components.
- 2012 2014 **Tawla**, *Game/Mobile (B2C)*, Startup (Employment)
 - Attained improved App ratings (from 3 to 4.5/5 stars) by building a new Artificial Intelligence (AI) player for the board game [n42r.github.io/tw].
 - Conceived and implemented a complex random number generator for the dice algorithm leading the game to receive good reviews due to less predictable game flow.

- 2012 2014 **Greetings Studio**, *Social Network/Mobile (B2C)*, Startup (Employment)
 - Supervised the development of a social network which enabled users to create E-Cards and images and share them with others [n42r.github.io/gs].
 - Trimmed turn-over time between user feedback and technical/product iterations by organizing a 10 minute weekly stand-up between marketing and technical teams.
 - O Scaled and improved the architecture of the SaaS for maintainability and performance.

Employment

- 2015 2020 Research Associate (Architect | Team Lead), University of Bamberg, Germany
 - Led a team to develop a data lake SaaS for a 3.5 million Euro EU manufacturing project, which led to improved data discovery, collaboration, and turn-over time [github.com/simutool].
 - \circ Strengthened relationships with the 10+ end-users (highly qualified professionals with PhDs) which led to better understanding of the domain and their requirements.
 - O Designed systems for ease of scalability, integration, and maintainability.
 - Organized the project, planned iterations and milestones, and supervised developers with agile practices to drive continuous growth.
- 2011 2014 Team Leader | Software Architect | R&D Engineer, TayalT, Cairo, Egypt
 - Led agile technical teams ranging in size from 2-4 on two long-term social media / mobile products resulting in continuously increasing app rankings and user base.
 - Strengthened cross-functional collaboration between technical, business, and UI/UX leading to 30% shorter cycle times, closer cooperation, and increased productivity.
 - O Researched and incorporated various state-of-the-art technologies.

Skills

- Hard Skills System design, coaching, technical product management, agile/lean, prototyping, research, R&D, meta-data / data management, domain modeling, knowledge management, change management, data integration, data cataloging.
- Databases MongoDB (NoSQL), Neo4j (Graph DB), SQL, Google Firebase Cloud, RDF
- Development Python, Docker (multi-container), Linux CLI, git, UML
 - Soft Skills Critical thinking, empathy, cross-functional collaboration, teamwork, leadership, (technical) communication, problem solving, public speaking, intercultural fluency
 - Past Skills Lisp, C++, Java, PIC microcontroller programming (embedded)

Education

- 2023 **PhD. (Dr. rer. nat.)**, Information Systems & Applied Computer Science, Otto-Friedrich-Universität Bamberg, Bamberg, Germany
- 2010 MSc., Computer Science & Engineering, The German University in Cairo, Egypt
- 2008 BSc., Computer Science & Engineering, The German University in Cairo, Egypt

Publications

Full list: scholar.google.com/citations?user=JgS4-1cAAAAJ

Languages

Arabic Mother Tongue

English Fluent

German Good understanding, Basic Speaking (B1, Telc Certificate)