Dr. Amol Thakkar

amolthakkar.com • linkedin.com/in/amolthakkar/ • https://github.com/A-Thakkar • https://orcid.org/0000-0003-0403-4067 • RXngb2IAAAAJ

Nationality: British
[t] +447568526090 [e] av.mol.th@gmail.com

My focus has always been on understanding users and solving meaningful problems. Over the last 10 years, I've worked at the intersection of Science, AI, Engineering, and Product Development. Now, I'm eager to apply this experience to address the next big challenge that truly impacts people.

Work Experience

IBM Research Europe, Switzerland   March 2022 – June 2024
Staff Research Scientist

- *RXN (Software, Data, ML, Product, and Consulting)* - A cloud-based NLP-driven platform for chemical reaction prediction, synthesis route planning, and robotic synthesis automation.
- *Lab that Learns (Software, Data, and Consulting)* - An event-driven system for the automated digitization of operational workflows, integrating multi-modal AI and systems engineering to improve laboratory efficiency.
- *Flowpilot (Software, Data, ML, and Consulting)* - Creation of a conversational text-to-SQL system, that simplified data access to enterprise databases.
- Additional Contributions: Supported product management for Generative AI in Chemistry, SaaS and payment service integration, and development of transformers for neuromorphic chip architectures.

AstraZeneca, Sweden   January 2019 – December 2021
PhD Research Scientist

- *AiZynthFinder (Software, Data, ML, Product, Consulting)* - Co-led the development of one of the first open-source AI-based synthesis planning tools, impacting ongoing projects.
- *Project-A (ML, Consulting)- Achieved sub-micromolar (in vitro) efficacy using* AstraZeneca's generative design and synthesis platform for neglected diseases with external partner.

Pfizer, UK   September 2015 – September 2016
Research Intern

University of St Andrews, UK   2013-2015
Research Intern

Education

University of Bern, Switzerland   2018-2022
Doctor of Chemistry and Molecular Sciences, Summa cum Laude

University of St Andrews, UK   2012-2017
Master in Chemistry (Honours), First Class

Last updated December 1st, 2024

Languages

English (Native), Gujarati (A2), German (A1), Norwegian (Basic)
Python (Main), Javascript (Basic), HTML (basic), CSS (basic)

Skills

ML, LLMs, Deep learning , PyTorch, Hugging face, Tensorflow/Keras, Sklearn, Cloud (AWS, IBM Cloud), FastAPI, Docker, Kubernetes, Ray, SQL and NoSQL Databases (Postgres, SQLite, Mongo, Redis), Dapr, CI/CD, Git, OpenShift, SLURM, LSF

Product Management, Client Relationships, Agreements (SOW, JDA, Licensing), Communication, Stakeholder Management, Adaptability, Agile, Market Research, Technical Specifications, Problem Solving, User Requirements, Roadmaps

RdKit, Gaussian, CPMD, DFT, Organic Synthesis, Scaling Processes, Spectroscopy (HPLC, LCMS, GCMS, NMR)

Volunteering

Zurich Graduate Consulting Club, Switzerland   September 2021 – June 2021
Consultant

University of St Andrews, UK   September 2013 – June 2015
Student-Staff Representative

Combined Cadet Force, UK   September 2005 – August 2012
Company Sergeant Major

References

Available on request