Nayan Kasturi

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SUMMARY

I'm a Mumbai-based Bioinformatician, Flutter-based App Developer and Software Engineer specializing in Python, Java, and modern web stacks. My work focuses on building tools like Scientry (automated scientific paper analyzer) and the Protein Research Toolkit (advanced protein structure and sequence analysis), where I combine distributed systems with biological domain knowledge to accelerate biomedical research. I've also developed Project Gatekeeper, a CNAME record based free and open-source SSL Issuance Toolkit. I constantly explore intersections between machine learning and molecular dynamics, maintaining active GitHub projects that bridge code with biological insights to solve healthcare challenges through scalable tech solutions.

EXPERIENCE

Team Leader
Viral Fission   **November 2021 - August 2024, Mumbai, Maharashtra, India · Remote**
· Led a team of 25-30 ambassadors, optimizing communication and processes to improve task completion, efficiency, and productivity.

Project Intern
Indian Women Scientists' Association   **February 2023 - March 2023, Navi Mumbai, Maharashtra, India · Hybrid**
· Conducted a literature review, designed composting experiments, and presented findings, improving process efficiency by 15%.

PROJECTS

Scientry: Simplifying Science, Amplifying Knowledge
Guru Nanak Khalsa College of Arts, Science & Commerce
Matunga, Mumbai
· play.google.com/store/apps/details?id=top.binarybiology.scientry
· Trained an LLM Model and developing an LLM-based platform that fetches research papers, generates simplified summaries, and creates interactive mind maps, reducing research time by 50% and enhancing comprehension.

Project Gatekeeper: All-in-One SSL Toolkit
Guru Nanak Khalsa College of Arts, Science & Commerce · gatekeeper.binarybiology.top/
Matunga, Mumbai
· An open-source automated SSL certificate generation toolkit that utilizes CNAME records to verify domains, insead of traditional TXT records. Gatekeeper helps by reducing costs by 99% and securing 23+ websites in under 10 minutes.

Protein Research Toolkit
Guru Nanak Khalsa College of Arts, Science & Commerce
Matunga, Mumbai
· github.com/RaannaKasturi/ProteinResearchToolkit
· Developed a Java-based GUI for protein toolkit that reduced visualization and alignment time by 40%, streamlined research workflows by 50%, and ensured 100% cross-platform compatibility.

EDUCATION

Master's of Science in Bioinformatics
Guru Nanak Khalsa College of Arts, Science & Commerce · Matunga, Mumbai · May 2025
· Pursuing Master's in Bioinformatics, focusing on databases, algorithms, and biological techniques, while also developing and managing the official BION'24 and BION'25 websites. Volunteered for graphic design and technical support to ensure successful event execution.

Bachelor's of Science in Biotechnology
SIES College of Arts, Science & Commerce · Sion, Mumbai · April 2023 · 7.91
· Earned a Bachelor's in Biotechnology with a 7.91 CGPA from SIES College, interned at IWSA, gaining composting and problem-solving skills. Developed graphic design and content creation expertise through extracurricular roles, refining creativity, teamwork, and communication abilities.

SKILLS

Tech Stack: Java, Git, Python, Flutter, Javascript, HTML, CSS, PostgreSQL, MySQL, Docker, WordPress, NextJS, Docker, LLMs, LangChain, LlamaCPP, Gradio, Cloudflare Workers

Bioinformatics: Research Skills, Flow Cytometry, Molecular Docking, Next-Generation Sequencing (NGS), Report Writing, Laboratory Skills, Biological Databases, Docking Studies

Miscellaneous: Leadership & Team Management, Autodidact, Fast Learner, Tech-Savvy, Adaptability, Problem-Solving, Graphic Designing, Content Writing

INVOLVEMENT

Web & Graphics Designer
Guru Nanak Khalsa College, Matunga · BION, Department of Bioinformatics · September 2023 – January 2025

Research Presenter
Guru Nanak Khalsa College, Matunga · SRIJNA, GNIRD · February 2024 – February 2024

Content & Creatives Volunteer
SIES College of Arts, Science & Commerce, Sion · Skyline Newsletter & Nirmitee Kendra · August 2021 – March 2023

Volunteer Staff
SIES College of Arts, Science & Commerce, Sion · Visions · June 2022 – December 2022

CERTIFICATIONS

A Complete Guide to Java Programming with Examples
Udemy · 2024

MedEngage Observership
Metropolis Healthcare · 2024

Python Programming for Beginners | Full Course in Hindi
Udemy · 2024

The Python 3 Certification Course
Udemy · 2024

Machine Learning
Acmegrade · 2024

Introduction to Next Generation Sequencing and Whole Genome Sequencing for Beginners
NyBerMan Bioinformatics Europe · 2024

60-hrs Hands-On Training Program in Molecular Biology
National Facility for Biopharmaceuticals · 2024

Advanced Instrumentation Techniques
SIES School of Packaging – Packaging Technology Centre · 2022

Photography Skill Enhancement Workshop
SIES College of Arts, Science & Commerce SION(W) · 2022

Astrobiology and the Search for Extraterrestrial Life
Coursera · 2021

Git, GitHub & Markdown Crash Course: Learn Git, GitHub & MD
Udemy · 2016