

AKASH

DEVELOPMENT ENGINEER /
BIOINFORMATICS

CONTACT

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Location: Bengaluru, India

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Portfolio:

<https://voidomin.github.io/resume-website/portfolio/>

SKILLS



PROFESSIONAL SUMMARY

Computational biologist and bioinformatics researcher with expertise in protein engineering, structural biology, molecular simulation, and biotech software development. Proficient in Python, Linux, molecular dynamics, and full-stack development. Proven track record of publishing peer-reviewed research (*Proteins* journal) while architecting production biotech platforms serving 18+ pharmaceutical clients. Experience with PyMOL, AlphaFold, Rosetta, Next.js, React, Node.js, SQL, REST APIs, and Git.

EXPERIENCE

Development Engineer

January 2024 – July 2025

Merck Life Science, Bangalore

- Engineered Bio4C Process Pad—an analytics platform serving 18+ biotech clients (Lotte, Syngene), enabling bioprocess monitoring through data-driven decision making systems.
- Designed h-index clustering algorithm with elbow curve optimization, improving protein classification accuracy and reducing computational overhead by 35%.
- Developed REST API integrations with SQL-based analytics backend for real-time process insights.
- Tech stack: JavaScript, React, Next.js, Node.js, SQL, Python

Research Intern (Student Researcher)

June 2023 – December 2024

Indian Institute of Science (IISc), Molecular Biophysics Department

- Conducted in silico saturation mutagenesis of CCDB protein using computational methods to predict variant effects and protein stability.
- Leveraged PyMOL for structural visualization, AlphaFold for protein folding prediction, and Rosetta suite for molecular modeling and energy calculations.
- Published research in *Proteins: Structure, Function, and Bioinformatics* journal, demonstrating novel protein engineering strategies.
- Used Linux bash scripting for bioinformatics workflow automation.

Program Coordinator (Web Developer)

August 2025 – Present

Abhyudaya (NGO)

- Developing responsive web applications for nonprofit using HTML, CSS, JavaScript and Laravel backend.
- Implementing CakePHP-based backend systems for organizational management tools.
- Version control with Git/GitHub.

PROJECTS

In Silico Saturation Mutagenesis of CCDB

Computational protein engineering study on CCDB protein variants with full structural and functional analysis using molecular dynamics.

Tech: PyMOL, AlphaFold, Rosetta, Protein Engineering, Molecular Simulation

AI-Assisted Bioreactor Analytics (Concept)

Tool-calling agent framework for intelligent bioreactor parameter optimization and predictive analytics.

Tech: AI, Analytics, Bioreactor, Python, Agentic AI

EDUCATION

Masters in Molecular & Cellular Biology / Life Sciences

2024

MS Ramaiah University

Bachelors in Biotechnology

2023

Dayananda Sagar University

PUBLICATIONS

In Silico Saturation Mutagenesis of CCDB

Proteins: Structure, Function, and Bioinformatics (2024) [View](#)

AWARDS & RECOGNITION

1st Place Poster Competition (Dayananda Sagar University)

State Government Scholarship

3rd Place Hackathon (Merck)