

# AKASH

DEVELOPMENT ENGINEER /  
BIOINFORMATICS

## CONTACT

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Location: Bengaluru, India

GitHub: <https://github.com/voidomin>

LinkedIn:

<http://www.linkedin.com/in/akash-bhat-930346197>

Portfolio:

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

## SKILLS

Python

Structural Biology

Protein Folding

Molecular Simulation

PyMOL

AlphaFold

Linux/Bash

R

SQL

Git

## 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)