Vaibhav Devarahatty

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Summary

Biotechnology Engineering graduate (CGPA: 8.56) with a **Minor in Economics & Finance**, experienced in building data-driven products, computational systems, and workflow automation solutions. Skilled in translating complex problems into scalable product workflows, analyzing user-centric data, and developing decision-support applications. Experienced with Python, SQL, AI-assisted development, Tableau, Power BI, Jira, and Google Workspace, with a strong interest in Product Management, AI, and fintech.

Education

M.S. Ramaiah Institute of Technology, Bengaluru — B.E. Biotechnology (Minor: Economics & Finance) | CGPA: 8.56 | Graduated 2026
Army Public School (PRTC), Bengaluru — Higher Secondary (Class XII, PCM + Biology) | March 2022

Experience

IASc–INSA–NASI Summer Research Fellow | Rajiv Gandhi Centre for Biotechnology (RGCB) | Aug 2025 – Sept 2025

- Identified research workflow bottlenecks and designed structured analytical solutions under strict project timelines.
- Automated biological data-processing workflows using Python and R, improving reproducibility and reducing manual effort.
- Analyzed large-scale sequencing datasets to generate actionable biological insights supporting research objectives.
- Documented methodologies and communicated findings through technical reports and presentations.
- Collaborated with researchers to improve workflows, troubleshoot challenges, and ensure successful project execution.

Projects

RiboWin | Computational Biology Tool
• Identified reproducibility and onboarding friction in Ribo-seq workflows; **built a modular five-phase pipeline** with YAML-based single-command execution**.**
• Improved developer experience and pipeline reliability by eliminating hardcoded paths, standardizing environments, and implementing runtime safety checks after resolving a failure affecting **16,000+ ORFs**.
ML-Based Multi-Omics Survival Prediction | Mini Project
• Built and evaluated Random Forest, SVM, and Voting Classifier models on **~90 patient** samples for survival prediction.
• Achieved **~66%** accuracy and **AUC ~0.64**, with Random Forest delivering the strongest performance.
• **Integrated mutation, RNA-seq, and clinical datasets** into a unified preprocessing and modeling workflow.
• Reduced feature space to the top 100 genes using feature importance ranking and PCA validation.
• Identified clinically relevant survival-associated biomarkers including BMP5, CTLA4, and NEIL3.
Unique Lego Parts Analysis
• Designed a relational SQL database with **7 linked tables** to improve data integrity and query efficiency.
• Wrote optimized SQL queries for complex joins and analytical reporting.
• Built interactive Tableau dashboards with dynamic filters and calculated fields for intuitive data exploration.

Skills

Tools: Python, Bash, SQL, R, Excel, Tableau, Power BI, Git, Jira
Product: User Research, Problem Structuring, Process Analysis, Stakeholder Coordination
Execution: Cross-Functional Communication, Process Optimization, Ownership Mindset

Contributions

GitHub: github.com/Vaibhav-81124
Tableau: public.tableau.com/app/profile/vaibhav.deverahatty/vizzes
Medium: medium.com/@vaibhavdeverahatty