

# VINAMRA VASHISHTH

[linkedin.com/in/vinamra-vashishth](https://www.linkedin.com/in/vinamra-vashishth) | [vinamra.vashishth@columbia.edu](mailto:vinamra.vashishth@columbia.edu) | [github.com/VinVash](https://github.com/VinVash) | [www.vinvash.tech](http://www.vinvash.tech)

## EDUCATION

<b>Columbia University</b> MS in Computer Science ( <i>Machine Learning Track</i> )	New York, NY <b>08/25 - 12/26</b>
<b>Indian Institute of Information Technology Kota</b> B.Tech. in Computer Science and Engineering <i>GPA 3.95/4 (5th Rank)</i>	Kota, Rajasthan, India <b>11/20 - 08/24</b>

## PROFESSIONAL EXPERIENCE

<b>Melio Labs</b> <b>Full Stack Data Engineer</b> (07/24 - 08/25)	<b><i>Transformed Melio's data infrastructure, enabling real-time multi-pathogen surveillance on diagnostics platforms deployed on the cloud, boosting efficiency by 40%.</i></b> <ul style="list-style-type: none"><li>Spearheaded the development of Melio's data pipeline, enhancing the time series analysis of DNA melting data which contributed to a 30% improvement in data processing efficiency.</li></ul>
<b>Full Stack Data Intern</b> (01/24 - 06/24)	<ul style="list-style-type: none"><li>Accelerated PCR data processing by 40% using optimized machine learning pipelines, enabling faster turnaround times for critical R&amp;D experiments and improved data driven decisions.</li></ul>
<b>Software Dev. Intern</b> (12/22 - 12/23)	<ul style="list-style-type: none"><li>Implemented a full-stack software - "Catalog + Task Runner" that streamlined data management and post-processing tasks, resulting in an impressive 50% increase in user productivity.</li><li>Constructed a web-based dashboard application for real-time monitoring of melting experiments, streamlining workflow and reducing data analysis time by 50%.</li></ul>

## PROJECTS

<b>Catalog + Task Runner</b> (01/24 - 08/25)	<b><i>Pioneered a web-based data management system automating workflows for 10,000+ blood sample chips; study timelines decreased by 3 weeks due to rapid data insights.</i></b> <ul style="list-style-type: none"><li>Innovated a robust data grid (Catalog) that reduced manual chip search time by 75%.</li><li>Engineered an intuitive Task Runner interface incorporating Machine Learning pipelines, which decreased data processing time by 50% per experiment and allowed for faster data analysis.</li></ul>
<b><a href="#">Time Series Annotation Using Active Learning</a></b> (03/23 - 05/23)	<b><i>Engineered a web application utilizing K-Means clustering and active learning to annotate a PCR melting dataset, reducing manual data labeling time by 99%.</i></b> <ul style="list-style-type: none"><li>Leveraged a PCR melt dataset of 10 million data points to demonstrate application's efficacy.</li><li>Pioneered the integration of 'Uncertainty Sampling' strategy within the K-Means clustering algorithm, leading to continuous refinement based on expert feedback and 10x faster labeling.</li></ul>
<b><a href="#">E-Daftar</a></b> (07/22 - 08/22)	<b><i>Developed a corruption-free file tracker-cum-manager during Smart India Hackathon 2022, streamlining administrative workflows. Achieved Runners-up position among 100 teams.</i></b> <ul style="list-style-type: none"><li>Devised a secure, dual-module system that utilized multi-factor authentication, enhancing inter-departmental efficiency and saving each employee approximately 10 hours per month.</li><li>Achieved a transparent workspace through the digitization of file movements and real-time tracking updates, improving process transparency and saving ~500 hours annually per office.</li></ul>

## POSITIONS OF RESPONSIBILITY

<b>Lead Organiser,</b> <b>HackTheChain</b> (03/23)	<ul style="list-style-type: none"><li>Orchestrated a global hackathon "HackTheChain" with over 800 registrations, securing 15+ sponsors and raising a prize pool of over INR 150 K through strategic planning.</li></ul>
<b>Core Team Member, Zine Robotics</b> (02/21 - 03/22)	<ul style="list-style-type: none"><li>Mentored 100+ students in a 10-day robotics workshop, resulting in a 40% increase in student participation and students securing top ranks in prestigious national competitions.</li></ul>
<b>Project Volunteer,</b> <b>SPENBIO</b> (05/21 - 10/21)	<ul style="list-style-type: none"><li>Led initiatives in waste management and Himalayan protection involving 50+ volunteers.</li><li>Designed a platform for improving the team's remote collaboration amid Covid lockdown.</li></ul>

## TECHNICAL SKILLS

- Programming Languages:** C / C++, Javascript, Typescript, Python, Solidity
- Libraries:** OpenAI, Sk-learn, Pytorch, Numpy, Pandas, Mongoose, React.js, Redux Toolkit
- Frameworks:** Langchain, Flask, FastAPI, Node.js, Next.js, Express.js, Hardhat
- Generative AI:** Prompt Engineering, Retrieval-Augmented Generation
- Miscellaneous:** Shell, Git, RESTful APIs, MongoDB, Docker, Web3, Blockchain

<b>Hackathons</b>	<ul style="list-style-type: none"><li><b>Runners Up</b>, Smart India Hackathon, 2022 - Developed a file management system.</li><li><b>3rd Position</b>, Unscript Rookie Hackathon, - Developed a hostel management system.</li></ul>
<b>Literary Enterprise</b>	<ul style="list-style-type: none"><li><b>98.25 percentile</b> among 1.1 million+ applicants - <b>JEE Main (Entrance Exam), 2020</b></li></ul>