

EDUCATION

University of Illinois Urbana-Champaign - **MS, Statistics (GPA: 4.0/4.0)** 08/2023 — present
Manipal Institute of Technology - **BTech, Computer Science & Engineering (GPA:4.0/4.0)** 07/2018 — 07/2022
Dean's List : 2019, 2021, 2022. (**Minor: Big Data**)

WORK EXPERIENCE

Data Science Intern, Bayer Research & Development | Python, SQL, R 05/2024 — present

- Enabled decision making through optimized statistical models **accelerating** the breeding pipeline by 27%
- Developed computational model to rank harvesters, **saving \$20 million in investment.**

Graduate Research Assistant, University of Illinois Urbana-Champaign | C++, Python, R 01/2024 — present

- Derived optimized estimation algorithms for statistical analysis of spatial transcriptomics dataset using diffusion models.
- Created KDE++ for efficient KDE in large datasets, achieving a **computational speed of 45x.**

Software Development Engineer, Citrix Research & Development | JavaScript, C, C++ 07/2022 — 07/2023

- Development and testing for the Citrix Workspace App for HTML5 & ChromeOS.
- Helped to drive the expansion of the client base from **700K to 1M monthly active users.**
- Reduced delays by 20% by optimizing printing algorithms, culminating in the **best feature delivered in Q1 2023.**
- Analyzed user data to fix bugs and automated cloud processes affecting over **100K users.**

Software Development Intern, Citrix Research & Development | JavaScript, C, C++ 01/2022 — 06/2022

- Optimized **visualization and analytics with GA4** and created comprehensive documentation **used by over 10+ teams.**

Summer Intern, Fleetx | NodeJS, Java, Python 08/2021 — 09/2021

- Tracked driver violations and produced a model to improve safety, resulting in a **15% reduction in speeding incidents.**

Founding member & Head of Web Development, Manipal BioMachines | Python, SQL 06/2019 — 07/2022

- Established the first biology based student project in Manipal and obtained **\$17K funding** by creating proposals.
- Directed lab experiments based on thorough data analysis to model a prebiotic to mitigate affects of

TECHNICAL SUMMARY

Languages & Tools Python, C / C++, SQL, Java, R, JavaScript, MATLAB, PowerBI, Tableau, Git.
Libraries and Frameworks pandas, NumPy, SciPy, scikit-learn, Keras, OpenCV, TensorFlow, PyTorch, matplotlib.

RESEARCH PROJECTS (VIEW ALL PROJECTS AT: [GITHUB.COM/WONKYVAMP](https://github.com/wonkyvamp))

Decoding Market Anomalies, UIUC

- Conducted comprehensive analysis on market data, integrating **sentiment from financial news** as polarity score.
- Built **regression, decision tree and LSTM** models to identify trend and forecast stock prices improving **R2 score to 0.92.**

Independent Research Associate, Samsung Research India (WonkyVamp/Dimensionality-Reduction)

- Investigated learning for near infra-red imaging, to project high-dimensional(112) data onto low-dimensions(4).
- Formulated an auto-encoder **neural network** and Gaussian Mixture Model achieving **98.78% accuracy.**
- Accepted at CVPR workshop.

Biomarker Discovery in Cancer Gene, UIUC (WonkyVamp/Feature-Selection)

- Controlled the false discovery rate in **high-dimensional** gene expression data for identifying potential cancer biomarkers.
- Selection using Lasso and random forest with the Knockoff filter and gradient boosting achieving an accuracy of **99.97%.**

AWARDS & TEACHING POSITIONS

- Department Highest Achiever**, Computer Science and Engineering Department for the year 2021-2022.
- Gold Medal, iGEM 2020** for Integrated Human Practices, Model and Science Communication.
- 1st Runner up, Bajaj HackRx** amongst 500+ teams in the nation-wide hackathon.
- Teaching Assistant**, Responsible for leading discussions, grading and holding office hours for Astronomy-121.