Vibhasri Kandukuri

vibhasrik@gmail.com — linkedin.com/in/vibhasrik — github.com/vibhasrik — vibhasri-kandukuri.vercel.app

Education

Purdue University West Lafayette, IN
B.S. in Computer Science, Machine Learning Concentration, Minor in Finance *Aug. 2023 – Dec. 2026*

- Certificate in Applications of Data Science
- Notable Coursework: Discrete Math, Linear Algebra, Analysis of Algorithms, Berkeley Artificial Intelligence Course

Experience

- **Undergraduate TA Scrum Master** *Aug 2025 - Present*
  Lincoln Financial Group, The Data Mine, Purdue University
  - Led an 11-member team to build logistic regression and decision tree models predicting annuity outcomes, improving interpretability of risk factors by 25%
  - Oversaw biweekly sprints, deliverables, and stakeholder reports, ensuring 100% on-time delivery through Agile practices
- **Team Lead and Software Engineering Researcher** *Aug 2024 - May 2025*
  AgRPA, The Data Mine, Purdue University
  - Engineered an autonomous drone mapping and targeted pesticide-spraying system that reduced chemical use by 60% and operational costs by 30–70%.
  - Developed a Python tool to convert shapefiles into flight waypoints for QGroundControl, improving battery utilization by 20% and image resolution through optimized coverage.
  - Managed all cross-team and stakeholder communication, coordinating integration across AI, software, and mechanical subsystems.
- **Data Science Intern** *May 2024 - Aug 2024*
  Vizzhy
  - Analyzed over 10,000 patient records using Pandas and NumPy to identify high-risk factors for diabetes onset.
- **Machine Learning and Data Science Researcher** *Aug 2023 - May 2024*
  Caterpillar, The Data Mine, Purdue University
  - Built a Flutter mobile app for EV fleet managers to monitor and receive real-time notifications of battery health.
  - Applied ARIMA time series forecasting to predict state-of-charge trends, reducing charging downtime by 15% and improving fleet utilization.
  - Cleaned and structured over 50,000 telemetry data points to enhance prediction model reliability.

Projects

- **Solar Energy Forecasting** *Apr 2025*
  Forecasted energy output of solar panels based on weather patterns from NOAA/USGS datasets.
- **Shell Interpreter** *Mar 2025*
  Built a C shell supporting subshell command evaluation, wildcard expansion, redirection, and piping
- **Simple C Compiler** *Mar 2024*
  Developed a Simple C compiler using Lex and Yacc to parse a reduced C language and generate x86-64 assembly code
- **Personal Malloc in C** *Jan 2025*
  Built a custom memory allocator in C leveraging freelists and system calls to manage dynamic memory safely and efficiently.
- **Android SQLite Java Bookstore** *Apr 2023*
  Developed a mobile app in Android Studio with SQLite backend to manage book inventory, customer orders, and transaction history for 100+ records, supporting offline data persistence and search queries.
- **Java Marketplace** *Nov 2023*
  Built a multithreaded Java client–server marketplace handling 20+ concurrent client sessions and 200+ simulated transactions using socket-based networking and persistent file storage

Skills

Languages: Python (Pandas, NumPy, Skicit-Learn), Java, C, R, Bash, Dart, HTML/CSS, React, SQLite, x86-64
Tools: Git, GitHub, Agile, Kanban, QGroundControl, Jupyter, LaTeX, Notion, Microsoft Suite

Extracurriculars

Treasurer West Lafayette, IN
Google Developer Group (GDG), Purdue University *Dec 2024 - Present*

- Managed funding, logistics, and workshops, including leading a Gemini API session that taught 100+ students to build AI/ML applications