# KAVYA SACHDEVA

📞 +1 217-954-3705 ✉ kavya5@illinois.edu 🔗 linkedin.com/in/kavyasachdeva 🐙 github.com/KavyaSachdeva

## Education

**University of Illinois at Urbana-Champaign** — Urbana, Illinois
*B.S. in Computer Science and Mathematics, Minor in Statistics* — *Expected: May 2026*
**GPA - 4.0/4.0 | Dean's List x2**

## Experience

**University of Illinois Urbana-Champaign** — **April 2024 – Present**
*Research Assistant* — *Urbana, IL*
- Implemented an ETL pipeline to extract and preprocess 80,000+ synthetic code samples from **Starcoder Instruct 2** dataset.
- Optimized JSON parsing framework, increasing data-processing speed by 70% to curate training datasets for fine-tuning a Large Language Model (LLM) for **proficient code reasoning** capabilities.
- Streamlined generation of **Python** debugger logfiles to analyze variable flow by utilizing **Tree Sitter** and **AST** libraries for code parsing, reducing data extraction time by 40%.
- Enhanced precision of variable state change tracking, resulting in 35% improvement in accuracy of model training datasets.

**Nokia** — **May 2024 – July 2024**
*Software Engineer Intern* — *Remote - New Delhi, India*
- Developed an internal multilingual information query engine using **Python**, optimizing cross-country team collaboration, reducing deployment process time by 25%.
- Engineered a robust backend using **NLTK and Sentence-BERT** libraries for generating vector embeddings, achieving 95% accuracy in mapping multilingual inputs to a Q&A database to improve query relevance and response accuracy.
- Designed an intuitive front-end for audio and text input using **ReactJS** and **Tailwind CSS**, boosting accessibility by 40%, enhancing seamless interaction across 50+ languages.
- Expanded knowledge base repository by 30% using **Flask** by leveraging **AWS Transcribe** for analysis of knowledge transfer sessions, reducing information retrieval time by 20%.

**Modulus Systems** — **Nov 2020 - Jan 2021**
*Software Engineer Intern* — *New Delhi, India*
- Utilised APIs to collect site traffic data and employed **Pandas and NumPy** modules in **Python** to analyse and summarise data over 10,000+ rows, identifying critical areas for Search Engine Optimization improvement.
- Built personalised reports for **5+** clients by analysing collected datasets and reporting key growth areas.
- Refined targeting strategies by leveraging advanced multiple regression techniques to optimize Key Performance Indicators(KPIs), resulting in a 30% increase in online reach.

## Projects

**House Marketplace App** | ReactJS, Firebase, CSS — **June 2024**
- Developed a House marketplace app, enabling users to create and sell property listings.
- Implemented user authentication by integrating **Google OAuth** and sign-in features
- Integrated **Google Firebase** to implement image upload capabilities on **Firestore** and a reliable user database.
- Designed an intuitive mobile friendly interface using **React.js** and **CSS**

**Betting Prediction App** | Python, NextJS, Flask, PyTorch — **August 2023**
- Designed a betting prediction, incorporating **Python** and **PyTorch** for robust machine learning capabilities.
- Engineered a machine learning model using **Scikit-Learn** and **PyTorch**, achieving nearly 90% accuracy in predicting betting outcomes based on historical odds.
- Implemented **CNN** and **feed forward models** to enhance predictive accuracy, enhancing the app's performance and usability on the **NextJS frontend**.

## Technical Skills

**Relevant Coursework**: Data Structures and Algorithms, Software Design, Linear Algebra, Discrete Math, Fundamental Math, Statistics and Probability, Data Science Methods, Multi-variable Calculus, Integral Calculus
**Programming Languages**: Python, JavaScript, Java, C/C++, SQL
**Frameworks/Tools**: ReactJS, NextJS, NodeJS, CSS, HTML, AJAX, API, MongoDB, Flask, Docker, Firebase, Git, npm, Postman, Agile Methodologies, Excel, Powerpoint
**Activities/Involvement:** Project Code Club: (Executive Board), CS124 Honors - Java: (Project Manager)