

Shreya Komarabattini

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Education

Purdue University

Bachelor of Science in Computer Science

May 2026

Skills

Programming Languages: Python, Java, C, JavaScript, TypeScript

Web Technologies: HTML, CSS, React.js

Backend & Data: Node.js, Express, MongoDB, SQL,

Tools & Platforms: Git, Jupyter Notebook, JavaFX, SceneBuilder

Testing: Cypress, Jest, Supertest

Data & AI: Data analysis, visualization, LLM, AI tools (ChatGPT, prompt engineering), workflow automation concepts

Projects

Healthycal - Mindful Eating Web Application (*React, Vite, Node.js, Express, mongodb, JWT, Cypress, Jest*)

LINK: <https://healthy-cal.vercel.app>

December 2025

- Built a full-stack web application that helps users log meals, track calories and nutrition data, and build healthier eating habits.
- Developed secure RESTful APIs with Node.js, Express.js, MongoDB, and JWT authentication to manage user accounts, meal data, and protected routes.
- Created an interactive React frontend with meal logging, nutrition search, meal tracking and progress dashboards and improved reliability through Cypress and Jest testing

ProtoPlay - Interactive Engineering Learning Platform (*Next.js, TypeScript, Tailwind CSS, shaden/ui*)

LINK: <https://protoplay.vercel.app/>

January 2026

- Built an interactive web platform that teaches engineering concepts through gamified simulations, architecture challenges, and algorithm puzzles, emphasizing learning by building rather than memorization.
- Designed and implemented challenge-driven user flows that evaluate user decisions in real time and provide immediate feedback to reinforce problem-solving and systems thinking.

Fort Wayne Crimes, Purdue University

LINK: <https://www.kaggle.com/code/shreyakb/crime-data-analysis-fort-wayne-2023>

2024

- Analyzed 150,000+ crime records using Python to classify incidents as violent or non-violent.
- Identified crime trends and patterns through data aggregation and visualization techniques.
- Collaborated with a graduate-level research team to produce data-driven reports and insights.

Experience

Systems Software Assistant, Purdue University

08/2023 - Present

- Re-imaged, configured, and maintained 100+ lab computers, ensuring consistent OS, software installations, and security updates.
- Resolved 1,500+ hardware and software tickets, maintaining 99% lab uptime and minimizing disruptions for students and faculty.
- Performed routine diagnostics, printer maintenance, and troubleshooting of technical equipment.
- Collaborated with IT staff while independently managing lab systems, providing front-line technical support, and planning and promoting lab events.

Undergraduate Researcher: Do We Really Know How to Use Graphs Effectively | Dr. Beomjin Kim

09/2024 – 02/2025

- Investigated effective visualization of categorical data, analyzing how users interpret bar, line, and stacked bar charts.
- Designed user studies to evaluate visualization clarity and reduce misinterpretation by non-expert audiences.
- Formulated evidence-based guidelines for selecting appropriate chart types to improve data comprehension.
- Presented findings at the 28th Annual Student Research and Creative Endeavors Symposium.

Teaching Assistant - Senior Capstone Project, Purdue University

2025

- Assisted in evaluating capstone project reports and presentations, leveraging Python scripts to support data processing and review pipelines.

Summer Camp Assistant, Purdue University

2025

- Represented the Computer Science department during a high-school summer camp program.
- Assisted students with technical activities and project development.
- Conducted research on prompt engineering and evaluated student capstone posters using AI-based tools.

Leadership involvement

- Active member of the Student Government Organization, organizing and supporting campus events.
- Presented research findings at the Love Data 2025 workshop at Purdue University, discussing data visualization practices and effective interpretation of categorical data.