

# RISHIT SHARMA

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## SUMMARY

CS student with a passion for problem-solving and a background in building cross-platform applications and machine learning models. Seeking a summer internship to apply technical skills and learn from experienced professionals.

## PROJECTS

### UPlate

Sep 2025 – Present

- Co-developed a cross-platform Flutter app with 2 friends to enhance the Purdue dining experience by integrating dietary filtering and meal suggestions; originally prototyped at the Hello World hackathon.
- Architected a backend migration from Firebase to a Cloudflare stack (Workers, D1, KV), reducing costs by 88% and allowing future scalability to other colleges, while retaining Firebase for Cloud Messaging and Gemini API features.

### Portfolio Website

Summer 2025

- Developed a React website to showcase my other projects, utilizing Framer Motion for accelerated graphics
- Utilized GitHub as a database for authorized writes and unlimited fast reads

### WeatherML

Summer 2024

- Used 10 years of historical weather data from the NOAA to train a feedforward neural network with PyTorch.
- The model was trained to predict the weather in Clive, Iowa with an accuracy of  $\pm 3$  °F.

## EXPERIENCE

### Computer Vision Developer, Autonomous Motorsports @ Purdue

Sep 2025 – Present

- Developed autonomous software for a self-driving golf cart competing in collegiate racing.
- Improved an existing OpenCV pipeline using DBSCAN (unsupervised machine learning) to denoise camera segmentation, resulting in clearer track visualization for high-speed obstacle navigation.

### Associate Web Designer, Waukee Aspiring Professional Experience

Jan 2025 – May 2025

- Collaborated with a local photographer to design and launch a business website
- Resulted in a new sales channel utilizing an on-demand print service

### FTC Head Programmer, Metallum Ultorum

Sep 2022 – Feb 2025

- Led programming for a team of 10 members, contributing to a regional finalist placement
- Developed autonomous operations using computer vision and sensors to identify and retrieve specific objects

## EDUCATION

### Purdue University – Anticipated BS in Computer Science – 4.0 GPA

Aug 2025 – May 2029

- Honors: Dean's List (Fall 2025)
- Relevant Coursework:* Programming in C (CS 240) – In Progress, Object-Oriented Programming (CS 180BLK) – A, Honors Multivariate Calculus (MA 271) – A, Data Mine Seminar (TDM 101) - A

### Waukee Northwest High School – High School Diploma – 4.214 GPA

Aug 2021 – May 2025

## SKILLS

**Programming Languages:** Flutter/Dart, workerd/JS, Java, R, Python, React/TSX/Tailwind, HTML5/CSS/JS

**Cloud Technologies:** REST APIs, Cloudflare (Workers, D1, KV) Firebase (Firestore, Cloud Messaging, Cloud Functions)

**Libraries & Frameworks:** Computer Vision, SQL, OpenCV, PyTorch, Pandas, NumPy, Matplotlib, Framer Motion

**Languages:** English (Native), German (Conversational), Hindi (Conversational)