

ARYAMAN DWIVEDI

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EDUCATION

University of Illinois at Urbana-Champaign

Bachelor of Science in Computer Science

May 2025

Minor in Mathematics

GPA: 3.98

SKILLS

Programming JavaScript • C++ • Python • Java • Git • HTML & CSS • SASS • PHP • SQL

Frameworks Electron.js • Vue.js • React Native • Flask • Django

Miscellaneous Arduino • PlatformIO • Shell • \LaTeX • Firebase • Heroku • Git

Communication English • Chinese • Hindi

EXPERIENCE

Chief Ground Station Engineer

NOV 2021 — Present

Illinois Space Society

Champaign, IL

- Developed a modern Ground Station Software using TypeScript and Electron.js to visualize flight telemetry in real-time
- Engineered an efficient custom packet structure, similar to JSON, to enhance communication rate by 50 percent
- Used PlatformIO to write embedded software for Long Range Radio using C++ to transmit critical telemetry during flight
- Enhanced data visualization capabilities using Chart.js, effectively rendering multiple data sets with minimal memory usage
- Integrated an offline GPS solution using Leaflet.js to ensure accurate tracking and reliable recovery of the rocket after landing

Undergraduate Researcher

FEB 2023 — Present

Illinois Applied Research Institute

Champaign, IL

- Replaced cluttered and confusing UI with an intuitive and user-friendly design into platform to streamline user experience
- Created a comprehensive cohort management system, empowering nutritional scientists to efficiently track participant data
- Implemented a robust messaging system, facilitating streamlined communication to enhance research effectiveness
- Enhanced administrative tools with additional features while optimizing user-friendliness, improving efficiency and ease of use

Full-Stack Intern

DEC 2019 — AUG 2020

UOLO PVT LTD

Bangalore, India

- Produced a timetable scheduling project for school administrators, automating the generation of institution-wide timetables
- Built a dynamic frontend using Vue.js, incorporating Axios to handle AJAX commands and deliver seamless user interactions
- Utilized Flask to power the backend, leveraging its efficient routing and server capabilities for optimal performance
- Employed Genetic Algorithms in Python to generate five valid alternative timetables, expanding options for administrators

Software Developer

JUN 2018 — AUG 2018

EZEPARK

Bangalore, India

- Developed a mobile app prototype aimed at mitigating traffic issues through license plate scanning of illegally parked vehicles
- Efficiently developed a cross-platform app using React Native, enabling simultaneous deployment on iOS and Android
- Leveraged Google Cloud Platform's Cloud Vision API to implement license plate number extraction from user-captured images
- Optimized the app's performance by using cloud APIs and reducing reliance on local libraries for a lightweight solution
- Achieved report submission times of under 1 minute and integrated with the police database to expedite official responses