

HIMANK DAVE

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Education

University of Waterloo

Waterloo, CA

Bachelor of Mathematics, Honours Co-op

2027

- **Coursework:** Object-Oriented Programming (C++), Tools and Techniques for Software Development, Algorithm Design and Data Abstraction, Functional Programming

Experience

Software Developer Intern

May 2023 – Aug 2023

Cactus Creatives Pvt. Ltd.

Ahmedabad, IN

- Wrote Python script to parse and migrate 25k records from **MySQL** to **PostgreSQL** databases, optimizing raw SQL queries in existing client codebase.
- Analyzed large product usage datasets through **linear/logistic regression** and **outlier detection** and gave insights, leading to over **25%** client savings and a **10%** client revenue increase.
- Developed and maintained a robust full-stack CMS in **HTMX** and **Django**, displaying real-time metrics of treatment plants for a waste management company.

Projects

Trivivo 🎮 | *HTML5/CSS3, Django, MySQL, REST Framework, AWS*

- Implemented *Who Wants to be a Millionaire* clone from scratch, deployed it to AWS EC2 instance.
- Built a responsive frontend using **HTML5/CSS3**, **Bootstrap** and **jQuery**, seamlessly integrated with **Django** and **MySQL** backend, while offering **RESTful API** for admin operations.
- Crafted interactive **admin dashboard** with real-time metrics, CRUD operations and detailed logs, optimizing game management by **45%**.

SpectraSVD 🎮 | *NumPy, OpenCV, Pillow, Streamlit*

- Wrote image compression algorithm using **low-rank approximation** with 25%+ size reduction.
- Employed **OpenCV** and **Pillow** for generating videos demonstrating image compression algorithm.
- Deployed an interactive webapp using **Streamlit**, allowing users to observe its impact on image quality and compression rate in real time.

EcoWiz 🎮 | *React, Flask*

- Created a full-stack app classifying garbage based on organic, trash, or recyclable criteria.
- Developed frontend with **React** and backend with **Flask** for access to waste classification model.
- Developed **multimodal image classification model** via **ResNet-50 CNN** and **YOLOv8**, for classifying garbage with 80% accuracy.

RedWish 🎮 | *Firebase, GCP, HTML5/CSS3, JavaScript*

- Designed and developed a website connecting donors, recipients, and blood banks.
- Built frontend with **HTML5/CSS3**, **Bootstrap**, and **jQuery**, and backend with **Firebase**.
- Utilized Google **DialogFlow** for a conversational AI chatbot, enhancing user engagement.

Technical Skills

Languages: Python, C/C++, SQL, R, JavaScript, HTML5/CSS3, HTMX

Frameworks: Django, REST Framework, Flask, React, jQuery

Libraries: Pandas, Matplotlib, Plotly, NumPy, OpenCV

Tools: Git, Linux, Bash, Powershell, Postman, GCP, AWS, Jira