HIMANK DAVE

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Education

University of Waterloo   Waterloo, CA
Bachelor of Mathematics, Honours (Co-op)   *2022 – Present*
- Major: Computational Mathematics
- Coursework: Functional Programming, Imperative Programming, Object-Oriented Programming, Tools and Techniques for Software Development, Data Structures and Algorithms

Experience

Software Developer Intern   May 2024 – Present
Cactus Creatives   *Remote*

Software Developer Intern   May – Aug 2023
Cactus Creatives   *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 full-stack CMS in **HTMX** and **Django**, displaying real-time metrics.

Projects

Trivivo ⭕ | *HTML5/CSS3, Django, MySQL, REST Framework, AWS*
- Built frontend using HTML/CSS/**jQuery**, backend with **Django** and **MySQL**, while offering **RESTful API** for admin operations and deployed to **AWS EC2** instance.
- 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 of 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 classification app with **React** frontend and **Flask** backend.
- Developed **multimodal image classification model** via **ResNet-50 CNN** and **YOLOv8**, for classifying garbage with **80%** accuracy.

RedWish ⭕ | *Firebase, GCP, HTML5/CSS3, JavaScript*
- Developed a full-stack health app to democratize blood donation and transfusion accessibility.
- Built frontend with HTML, CSS, Bootstrap, and jQuery, and backend with Firebase.
- Utilized **DialogFlow API** to craft a chatbot for customers, 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