

Savy Dhillon

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EDUCATION

San Francisco State University (SFSU), San Francisco, CA
B.S. in Computer Science

Aug 2018 - May 2024

WORK EXPERIENCE

Applied Materials, Santa Clara, CA

Image and Data Analysis Engineer Intern

Jun 2023 - May 2024

- Developed a real-time video monitoring system, reducing manual inspections by 75% using YOLO for object detection and OpenCV, significantly enhancing operational efficiency in manufacturing.
- Boosted manufacturing efficiency and accuracy by 90% with a custom Python Deep Learning model for real-time video feed analysis, improving quality control and minimizing defects.
- Engineered a Python-based alert system, achieving 100% machine failure prevention by integrating with CNC machinery for predictive maintenance, eliminating unscheduled downtime.
- Played a key role in defect inspection enhancement by integrating Python-trained machine learning models into a C# application, showcasing expertise in cross-technology integration to enhance efficiency.
- Provided process analytics, improving operational insight and yield using Python for advanced data analysis, supporting data-driven decision-making.
- Automated routine tasks, saving 40 staff hours weekly with Python scripts, increasing productivity and reducing manual workload.
- Conducted ongoing research into the latest developments in the field, integrating cutting-edge methodologies and technologies into our processes to continually enhance our model's performance and efficiency.

SF Hacks, San Francisco, CA

Software Developer

Oct 2022 - Dec 2022

- Elevated user experience on the SF Hacks website, by implementing responsive user interface design principles and optimizing performance, resulting in a 30% increase in user engagement, using HTML5, CSS3, and JavaScript.
- Collaborated with front-end designers to maintain up-to-the-minute website accuracy, ensuring the integration of real-time updates and event information.
- Organized a successful 3-day hackathon at SFSU, accommodating 200+ Bay Area hackers, streamlining logistics to enhance participant experience.

ACADEMIC PROJECTS

CalTracks Emergency Management App (Team Lead and GitHub Master)

- Spearheaded the development of CalTracks, a critical emergency reporting and information platform, leveraging a tech stack comprising Node.js, Express, React, and SQL, demonstrating strong proficiency in full-stack development.
- Engineered a robust backend architecture using Node.js and Express, facilitating seamless data management and API integration for real-time emergency updates and user interactions.
- Implemented a comprehensive SQL database schema, ensuring efficient data storage, retrieval, and filtering of emergency reports, user accounts, and real-time alerts, thereby enhancing system reliability and performance.
- Managed the deployment of the CalTracks application on AWS, showcasing expertise in cloud computing and infrastructure management, while overcoming challenges with AWS billing and EC2 instance creation.
- Fostered a culture of continuous improvement and collaboration, utilizing tools like Discord and Trello for communication and task management, which was instrumental in overcoming challenges and achieving project milestones.
- Demonstrated exceptional project management skills by assigning tasks, setting deadlines, and ensuring project alignment with user requirements and milestones, leading to successful project outcomes.

TECHNICAL SKILLS

- Programming: Python, C++, C#, Java, Golang, JavaScript, Docker, Kubernetes
- Web: HTML5, CSS, React, D3, ES6, NodeJS, AWS, Git, Linux
- API and Database: RESTful API, SQL, PostgreSQL, MongoDB

RELEVANT COURSEWORK

- Software Development
- Natural Language Processing
- Artificial Intelligence
- Machine Learning
- Data Structure and Algorithms
- Computer Vision