YASH VENKATESH BITLA

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Objective: Software Engineer full-time roles starting June 2024

EDUCATION

University of Southern California, Los Angeles, CA **Jan 2022-Dec 2023**
Master of Science in Computer Science CGPA: 3.61/4
Courses: Artificial Intelligence, Analysis of Algorithm, Web Technologies, Database Management

University of Mumbai, Mumbai, India **Aug 2017-May 2021**
Bachelor of Engineering in Computer Science CGPA: 3.9/4

WORK EXPERIENCE

Dragonfruit AI, USA, *Software Engineer Intern* **Mar 2024-Present**

- Spearheading integration of **object detection training workflows** with Weights and Biases API, improving **efficiency by 5%** to manage large-scale AI model training more effectively.
- Dockerized training environments and automated a job launch system to initiate model training, **reducing deployment time by 10%.**
- Streamlined model setup for non-experts, **doubling monthly custom model deployments**.

SoFi (Galileo Financial Technologies), USA, *Software Engineer Intern* **May 2023-Aug 2023**

- Deployed a program-level feature to **enhance fraud detection**, identifying name mismatches in ACH transactions and **reducing unauthorized transactions by 8%**.
- Implemented name mismatch service in shadow mode, leveraging Kubernetes and RabbitMQ, to process incoming ACH transactions in the background **within 1%** of existing processing time.
- Built data dashboard using Splunk and MongoDB, enabling real-time analytics and insights extraction, contributing to a **10% rise in client attraction and retention.**

Integrated Media Systems Center Lab, USC, *Research Engineer* **May 2022-May 2023**

- Explored and addressed **real-world street monitoring complexities**, focusing on homeless encampments.
- Authored a case study on object detection and counting challenges, supervised by Dr. Seon Kim.
- Adapted the **YOLOv5 model** to detect homeless encampments in different noisy environments with a **precision of 0.75 and counting error ratio of 0.13**.

Development Monitors LLC, Arlington, USA, *Software Engineer* **Jan 2021-Dec 2021**

- Engineered an **end-to-end inference pipeline,** developing robust RESTful APIs to trigger machine learning models optimized for efficient detection in user-selected map regions.
- Analysed API responses to dynamically generate shapefiles, transforming pixel coordinates to latitude-longitude data for precise mapping; **reducing mapping error by 12%**.
- Optimized web-based rendering of detection output, leading to **2x increase in overall time efficiency**.

TECHNICAL SKILLS

- Programming Languages - Python, Ruby, Java, C, C++, HTML, CSS, JavaScript, TypeScript
- Frameworks - Node.js, React, Angular, REST, Docker, Kubernetes, Django, Next.js, Splunk, RabbitMQ
- Database and Cloud - MongoDB, MySQL, Hadoop, Firebase, GCP, AWS, PostgreSQL

SELECTED PUBLICATIONS

- **Yash Bitla**, Abdullah Alfarrarjeh, Seon Ho Kim, Utkarsh Baranwal; *Presented at **ICIP 2023*** (Link)
  Object Detection and Counting Challenges in Real Street Monitoring: Case Study of Homeless Encampments

PROJECTS

Event Finder Application (Link) **Feb 2023-Mar 2023**

- Developed a responsive web page using **Angular and Node.js**, integrated with real-time APIs for enhanced user engagement.
- Improved event search functionality by integrating Google Maps and IPinfo.io geocoding APIs.

Drone Route Planning – *Indian Space Research Organization* (Code) **Jul 2020-Aug 2020**

- Designed an algorithm to plan most efficient drone route and schedule, considering constraints like geography, drone battery, fuel stations, and obstacles.
- Created user interface using **ReactJS** to simulate the drone route, improving usability and user experience.

LEADERSHIP & AWARDS

- Achieved 3rd place out of 200+ teams in a **National Level Hackathon** for project sponsored by ISRO.