YASH VENKATESH BITLA

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Objective: Software Engineer full-time roles

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, Information Retrieval

University of Mumbai, Mumbai, India **Aug 2017-May 2021**
Bachelor of Engineering in Computer Science CGPA: 3.9/4
Courses: Data Structures, Machine Learning, Object Oriented Programming, Database Management

TECHNICAL SKILLS

- Programming Languages - Python, Java, C++, HTML, CSS, JavaScript
- Frameworks & Tools - PyTorch, TensorFlow, Docker, Kubernetes, Node.js, ReactJS, AngularJS, REST
- Database and Cloud - MongoDB, MySQL, Hadoop, Firebase, GCP, AWS, PostgreSQL

WORK EXPERIENCE

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

- **Enhanced fraud detection** by implementing a program-level, configurable feature in Python and Flask, preventing unauthorized transactions by identifying name mismatches in ACH transactions.
- Developed the name mismatch service in shadow mode, leveraging Kubernetes and RabbitMQ, to process incoming ACH transactions **within 1%** of the existing processing time.
- Built a data dashboard for collecting valuable insights and analysis using Splunk and DynamoDB.

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

- Research focused on Object Detection and Counting Challenges in Real World Street Monitoring: Case Study of Homeless Encampments under Dr. Seon Kim. (Selected Publication)
- Adapted the **YOLOv5 model** to detect homeless encampments in an occluded, illuminated etc noisy environments with a **precision of 0.75 and counting error ratio of 0.13**.

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

- Developed and fine-tuned a Feature Pyramid Network on geospatial satellite imagery, enhancing accuracy in detecting roof types (mud, metal, clay) from an **mIOU of 0.58 to 0.74**.
- Engineered an **end-to-end inference pipeline,** developing robust RESTful APIs to invoke machine learning models for efficient detection in user-selected map regions.
- Utilized **API responses to dynamically generate shapefiles**, converting pixel coordinates into latitude-longitude coordinates for accurate mapping.
- Optimized web-based rendering of the detection output, leading to **2x increase in overall time efficiency**.

Young Women's Christian Association, India, *Software Engineer Intern* **Jan 2020-Oct 2020**

- Identified problems in YWCA's event management and led an android development team that built a mobile application (Link) to improve their operations.
- Integrated **dynamic lists with recycler view** to display different events and created an admin control page.
- Boosted **click rates by 133%** and increased **event registration by 200%.**

PROJECTS

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

- Developed a web page using AngularJS, Node.js and Flask that interfaces with the Ticketmaster API to retrieve event information based on user search input.
- Improved event search functionality by integrating Google Maps and IPinfo.io geocoding APIs.
- Incorporated a search radius and real-time user location tracking to provide more relevant results.

Drone Route Planning – ISRO *(Smart India Hackathon)* (Link) **Jul 2020-Aug 2020**

- Designed an algorithm to plan most efficient drone route and schedule, considering multiple constraints like geography, drone battery, fuel stations, and obstacles.
- Performed simulation and animation using ReactJS, HTML, CSS and Google Map API to visualize routes.

LEADERSHIP & AWARDS

- **Founding Team Member of StraysCue**, a Non-Profit Organization for animal welfare that secured a grant of $2,00,000 in technical credits from Xartup fellowship.