Nitish Sathvik Chinta

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Work Experience

Tech/ML Lead - Ivory.ai Jan 2022 - Present

- Was one of the first 3 members of the team, responsible for building the ML pipeline and models. Creating machine learning models to assist dentists in diagnosing cavities, gum disease, etc using X-rays using transfer learning on popular backbones such as YOLO and Detectron2
- Currently experimenting with transformer-based architectures to improve performance, while also testing GAN networks to generate data for rare classes

Data Science/Machine Learning Intern - Coupang Jun 2022 - Sept 2022

- Made a machine learning model to automatically identify and classify logos in images to filter out counterfeit items being sold on the website automatically.
- Created model with $>$ 90% precision and recall on the most popular logos using transfer learning on YOLOv5, trained on a dataset of over 150k images. Created automated scripts to automate adding more logos to the model and re-train with little user input necessary.
- Worked with a remote team in South Korea to understand the business problem and develop a solution
- Learned how to do independent research on the latest advancements in the field of computer vision and machine learning and implemnent my findings with little to no supervision. Also learned how to work with large data, and filter out "bad data" at a large scale.
- Used cloud technologies such as AWS EC2, Lambda, S3, and API Gateway

EE 497/498 Capstone - University of Washington Jan 2022 - Jun 2022

- Worked with both the Electrical Engineering and Computer Science departments in addition to Coupang to develop computer vision models for Coupang's marketplace. Worked as a mentor/student hybrid alongside a team of 4 other students
- Personally worked on an image upscaling model to improve the quality of images on the marketplace as sellers would upload low-quality images of their products leading to loss of potential sales.
- Learned how to quickly and efficiently research and implement new ideas in the field of computer vision and machine learning (GAN models specifically for this problem). Utilized technologies such as EC2 and S3. Succesfully created and deployed the model to production.

Software Engineering Intern - Amazon Sept 2021 - Dec 2021

- Worked on lookout for metrics team within AWS to streamline the process of creating and deploying new anomoly detectors to the lookout for metrics service
- Automated user entry into the Lookout for Metric service by automatically parsing CSV/JSON files and inferring necessary configs using Kotlin.
- Learned how to create APIs using Amazon's internal builder tools to interact with their service and cloud technologies within AWS such as Lookout For Metrics, S3, and API Gateway

Data Science/Machine Learning Intern - Coupang Jun 2021 - Sept 2021

- Worked on a machine learning model to categorize items on Coupang's marketplace automatically in order to allow users to find items more easily without needing seller input
- Used cloud technologies such as AWS EC2 and S3 and worked extensively with SQL, Hive and Zeppelin to query and analyze billions of rows of data
- Created end-to-end ML pipeline in PyTorch, utilizing both text and image inputs using groundbreaking techniques, such as automatic mixed-precision, distributed data-parallel, and decision-level fusion to take in both the picture and title of the product

Software Team Member/Machine Learning Engineer- Husky Satellite Lab Nov 2020 - Present

- Learned C and C++ in a short period of time to create a guidance system for our satellite based on pictures of stars taken by an onboard camera
- Read many research papers in order to understand different algorithms used to detect stars in image and determine our heading based on the detected stars. Implemented these algorithms from scratch in C++
- Proposed and implementing a machine learning model to automatically do all the image processing and star detection in one shot. Utilizing Tensorflow Lite so we can work with microcontrollers on our satellite

Software Engineering Intern - Coupang Jun 2020 - Sept 2020

- Worked extensively in an industry environment. Learned the DevOps life cycle and the Agile development approach quickly.
- Used Spring and JUnit in order to create API tests in our Java source code.
- Worked with Jenkins and other continuous integration tools in order to provide a full dev-ops pipeline for our team. Created my own build jobs which hosted end-to-end test, and worked with Groovy pipeline scripts in order to automatically trigger and provide feedback.
- Learned an automated web manipulation software, Puppeteer, in a very short period of time in order to create end-to-end test for our service.
- I suggested, learned, and created Tensorflow models for Machine Learning purposes that would elevate our platform to the next level. Used both Neural Networks and Boosted Trees for different models.
- Using React, I was able to create tools that would interact with multiple APIs to display information from our database in a clean and organized way.

Education

2019 - 2023 Bachelor's Degree **University of Washington - Seattle** (GPA: 3.74/4.0)
Dean's List:
2019 - 2020: Winter, Spring
2020 - 2021: Autumn, Winter, Spring
2021 - 2022: Winter, Spring
2017 - 2019 Eastlake High School
2015 - 2017 International School of Hyderabad

Skills

Java, Python, Machine Learning Data Science, Tensorflow, PyTorch
C++, Kotlin, Javascript Data Structures, Algorithms