Varun Manjunath

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Education

University of Colorado, Boulder (August 2021 - May 2023) **Boulder, Colorado**
Master of Science in Computer Science *GPA:4/4*

PES University (August 2016 - August 2020) **Bangalore, Karnataka**
Bachelor of Technology in Computer Science and Engineering *GPA:8.81/10*

Stanford University (June 2019 - August 2019) **Stanford, California**
Stanford Summer Program *GPA:3.61/4*

Skillset

- **Programming Languages:** C++ , Python, JavaScript,HTML (with CSS),Java
- **Machine Learning Techniques:** Naive Bayes, Decision Trees, Logistic Regression, Support Vector Machines, Convolution Neural Networks, Capsule Networks
- **Tools:** Git, Kubernetes, Docker, PostgreSQL, NGINX, Ansible, Terraform
- **Libraries :** Scikit-learn, pandas, NumPy, Matplotlib, Pytorch, Keras
- **Frameworks :** Flask, React

Experience

Arista Networks **June 2022 – August 2022**
Software Engineer Intern *Austin, Texas*

- Learned about the Code Base which revolves around the concept of creating an Agent.
- Unblocked the VTI, VNI policer CLI in Arfa so that Microsoft can configure it One.
- Worked on MLAG (Multi-Chassis Link Aggregation) switch where I had to Refactor code to sync only Flood List entries across MLAG switches.

University of Colorado at Boulder **Jan 2022 – May 2022**
Course Manager - Machine Learning *Boulder, Colorado*

- Conducted office hours for students and resolved their doubts in the Machine Learning grad course.During office hours, clarified conceptual questions pertaining to algorithms like **K-means clustering**, **Convolution Neural Nets**, **Random Forest Classifier**.

VMware **Aug 2020 – Aug 2021**
Applications Administrator *Bangalore, Karnataka*

- Deployed and maintained around **30** applications on Kubernetes.
- Wrote shell scripts to monitor the latency of docker pulls from **Harbor**(a private repository for storing docker images) hosted internally within the VMware data center and externally on Amazon Web Services. The shell script monitored around **228 docker images** deployed by several teams within and outside VMware on **Harbor**. Outputs of these shell scripts were then fed to Wavefront, a web-based user interface to display the results in the form of line charts.

Valuebound Consulting Services **Feb 2020 – June 2020**
Data Science Intern *Bangalore, Karnataka*

- Built a **Context-Based Recommender** System that provides persona-based content to VMware employees on the Intranet based on the Employee's function, role, location, and interests.
- The Recommender system achieved a **personalization score** of **0.744** which is pretty high.

Mindstix Software Labs **June 2018 – Aug 2018**
Data Science Intern *Pune, Maharashtra*

- Developed an **Adaptive Learning and Collaboration Platform** to provide **requirement-based** training to beauty advisors of the **Estee Lauder** cosmetic company.
- There were a total of **30** questions and these questions were equally categorized into **Easy,Medium and Hard** levels.
- Developed a **Chat-bot application** to deliver information about cosmetic products to **Estee Lauder** cosmetic company
- Around **200** question-answer pairs were collected from company employees and trained on the Rasa NLU framework.

Projects

Viz-Wiz Visual Question Answering System | *Python,Pytorch,Numpy* **March 2022 - April 2022**

- Designed a Viz-Wiz Visual Question Answering system that takes an image and question as input and outputs the answer to the question. The question is related to the content present in the image
- The model utilizes a combination of **Resnet50** for image feature extraction and a **bidirectional LSTM** for question encoding.
- Achieved an **accuracy of 44.2** percent on the validation set

A Music Store Simulation | *Java,JUnit* **Jan 2022 - March 2022**

- Utilized Object Oriented design principles to create a simulation of a music shop.
- The shop includes buy and sell transactions, where the customer can buy a musical item and sell musical items to the store.

Provisioning of AWS infrastructure using Terraform | *Terraform,AWS* **October 2021 - December 2021**

- Provisioned AWS EC2 instances and created an Apache server within them to access the content.
- Performed a simulation of Blue-Green deployment on AWS.

Brewery react application | *Flask, ReactJS , PostgreSQL* **July 2021 - August 2021**

- A brewery react app that implements search functionality. The user can search the breweries based on the location, address, state, city, and number.

Publications

- Anant Koppar, Siddharth Kailasam , **Varun M**, **"Pediatric Bone Age Detection using Capsule Networks"**.In: "Lecture Notes in Networks and Systems" (ICICT 2020 conference).