KEMBHAVI PRATEEK RAVINDRA

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OBJECTIVE:

Aspiring to pursue a Master's in Computer Science with a focus on Artificial Intelligence and Data Analytics and also keen to take up additional coursework on Distributed and Cloud Computing. After graduation, I aim to work with established universities or industries on systems generating massive amounts of data and also work on the automation and orchestration of services to streamline complex workflows in large-scale systems. Upon acquiring adequate skills, I aspire to become a self-sufficient technical team leader who is well-versed with the nuances of complex, large-scale systems, capable of making effective real-world contributions, and leading a group of like-minded peers.

EDUCATION:

B.Tech in Computer Science, National Institute of Technology Karnataka (NITK), Surathkal *2015 – 2019*
GPA: **7.86/10**

RELEVANT COURSES:

Computer Programming, Computer Organization and Architecture, Theory of Computation, Data Structures and Algorithms, Software Engineering, Operating Systems, Design and Analysis of Algorithms, Object-Oriented Programming, Computer Networks, Database Management Systems, Heterogeneous Parallel Computing, Compiler Design, Computer Graphics, Advanced Data Structures, Soft Computing, Distributed Computing, Distributed Database System, Software Project Management, Data Warehousing and Data Mining, Network Management, Network Security, Information Retrieval

WORK EXPERIENCE:

- **Software Engineer, GE (General Electric) Healthcare, Bengaluru** *July 2021 – Present*
  - Working with the DICOM Image Management team responsible for developing and maintaining DICOM services like Storage, Query, and Print services.
  - Worked on QIDO-RS and De-identification service enhancements.

- **EEDP (Edison Engineering Development Program) Engineer, GE Healthcare** *July 2019 – July 2021*
  Role involved working with 3 teams across different modalities for 2 years (8 months per team) and also undertaking courses and projects on Software, Systems, and Project and Product Management domains.

  - **Primary Care Ultrasound (3rd Rotation)** *November 2020 – July 2021*
    - Worked with the team to analyze data coming from VScan Air handheld ultrasound devices.
    - Created a data pipeline to ingest data into Elasticsearch and obtained important insights on ultrasound probes' status and health by making visualizations using Kibana.
    - Worked under a cross-functional team to explore design ideas on the architecture and their feasibility for implementation while conforming to data privacy guidelines.

  - **Remote Connectivity (2nd Rotation)** *March – November 2020*
    - Migrated the team's portal for viewing remote devices' information from JSF to Angular, reducing page loading time by up to 32%.
    - Also wrote wrapper scripts in Springboot REST app to trigger the remote devices' events.

  - **Global Imaging DevOps (1st Rotation)** *July 2019 – March 2020*
    - Created a self-service portal and chatbot for automating the team's developer onboarding process.
    - Automated manual tasks like provisioning project resources and recommending intelligent fixes for CI/CD build failures.
    - Eliminated manual work and reduced developer wait time from 1 day to under 15 minutes.
    - Used Jenkins for the project's CI/CD and Ansible for deployment and orchestration.

- **Project Trainee at Tata Consultancy Services (TCS), Thane** *May – July 2018*
  - Ported an existing multi-lingual android app, "ShishuPoshan" (the app provides guidance on issues related to breastfeeding and child health), to iOS using the Ionic framework, as a Proof of Concept.

RELEVANT PROJECTS:

- **Low Code Development Platform, GE Healthcare** *January – May 2021*
  - Worked with the Digital Services team to create a low code development platform intended to be used by rule authors and SMEs to create simple web-apps to perform on-the-fly analysis of complex data coming from on-field machines.
  - Wrote typescript code to translate user interactions into JSON configuration for generating the web-apps.
  - Also worked on creating the user interface for the platform using Angular.

- **PHI Anonymizer, GE Healthcare** *May 2020*
  - Created an application to anonymize Protected Health Information in user-uploaded patient reports.
  - Trained two SVM classifiers using word-level and sentence-level agglomerative clustering over ELMo embeddings of tokens and obtained clustering confidence of 55%.
  - Used Python-Flask, Angular, NLTK, spaCy, ELMo, and Docker-Compose for container orchestration.

- **DICOM tags Validator, GE Healthcare** *March 2020*
  - Created an application to validate a set of DICOM tags for user-uploaded DICOM files and display the results for the same.
  - Used Python-Flask and Angular and deployed the application on a single node Kubernetes cluster.

- **Mitigation of RPL Stateless Address Auto-Configuration IPv6 spoofing attack in IoT, NITK**
  August 2018 – March 2019
  - Worked with two teammates and developed an algorithm to mitigate the IPv6 spoofing attack in the Contiki IoT Platform written in C.
  - Used the Cooja simulator to simulate the attack scenario and the fix.
  - Wrote a technical paper regarding the same and presented it at the 1st International Conference on Networks and Cryptology (NetCrypt), June 2019 at JNU, New Delhi.

- **Music Database System** *January – May 2017*
  - Developed a music database system on the lines of IMDb. It functioned as a web application for users to store information on music and rate them.
  - Used the WAMP stack (Windows, Apache, MySQL, PHP) for the implementation along with AngularJS and Bootstrap for the UI.

TECHNICAL PAPER/PRESENTATION:

- Presented a technical paper on "Mitigation of RPL Stateless Address Auto-Configuration IPv6 spoofing attack in IoT" at the 1st International Conference on Networks and Cryptology (NetCrypt), June 2019 at JNU, New Delhi
  June 2019

ACTIVITIES AND AWARDS:

- Participated in a GE Hackathon organized by the GE Aviation Cicada team. Part of the winning team that successfully implemented Github and New Relic integrations of a product deployed using the Cicada (an in-house CI/CD tool) pipeline. *GE Healthcare, June 2021*
- Won Impact award as a part of the Wardenclyffe team in Global Imaging DevOps for delivering consistently for over three successive sprints. *GE Healthcare, April 2020*
- Wrote a series of articles for the quarterly issued Global GEHC Edison newsletter. Also interviewed EEDP alumni for biographical articles. *GE Healthcare, October – December 2019*
- Won the best paper award for presenting the paper on "Mitigation of RPL Stateless Address Auto-Configuration IPv6 spoofing attack in IoT" at the 1st International Conference on Networks and Cryptology (NetCrypt), June 2019 at JNU, New Delhi *NITK, June 2019*