KAUSTHUB THEKKE MADATHIL

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EDUCATION

National Institute Of Technology Karnataka, Surathkal   July 2019 - May 2023
Bachelor of Technology : Major in Information Technology   CGPA : 9.04/10.00
Minor in Management   CGPA : 9.00/10.00

WORK EXPERIENCE

Summer Intern   May 2021 - Present
Supervisor : Dr. Unnikrishnan Cheramangalath   *IIT Palakkad*
· Incorporated for-loop, 1D & 2D array and builtin function for sort into the HOC interpreter.
· Studied and analysed loop optimizations on matrix multiplication and its effect on cache.
· Currently working on improving HOC interpreter to identify regions for GPU computation.

Dosimeter App   May 2021 - Present
Supervisor : Dr. Kiran M   *NITK, Surathkal*
· Developing a dosimeter-app based on radiochromic films to eleminate the conventional steps of dosimetry.
· Improved contour finding, GUI and added a feature to select a particular region of the films for analysis.
· Currently working on films with multiple exposed regions and films of different sizes.

SELECTED PROJECTS

Sharding of D2D users   August 2020 - November 2020
· Sharding of D2D users using K-means algorithm based on its application type.
· Calculation of SINR and corresponding resource allocation using PSC-NS3.

Real Time Face Mask Detection   August 2020 - November 2020
· Classified images into three categories of "with face mask", "without face mask" and "face mask not worn properly" using transfer learning approach to build the model with MobileNetV2.
· Achieved 98% accuracy on a dataset of 4000 images which is in par with the current benchmark accuracy.

ACM-NITK Website Revamp   December 2020 - May 2020
· Changed the front-end from HTML/CSS to React.js and coupled it with Django back-end

TECHNICAL SKILLS AND INTERESTS

Skills	**Coding**: C/C++ **Scripting**: Python, Shell. **Dev**: Javascript, HTML/CSS.
Framework or Library	Django, React.js, OpenCV, YACC, FLEX
Interests	Compilers, Web Development, Computer Organisation and Architecture

EXTRA CURRICULAR AND ACHIEVEMENTS

· Web Master at ACM NITK Chapter
  – Responsible for maintaining and updating the website of ACM NITK Chapter
  – Mentoring juniors in projects and conducting Knowledge Exchange Sessions.

· Top 50 in the Hackverse'21 hackathon.
· Publishing technical blogs on Medium.