KRITI SHUKLA

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EDUCATION

University of Southern California, Los Angeles, CA — Dec 2024
Viterbi School of Engineering — GPA 3.92/4.0
Master of Science, Computer Science

National Institute of Technology Karnataka, India — Aug 2022
Bachelor of Technology, Mechanical Engineering — GPA 9.65/10
Minor: Computer Science and Engineering
(Coursework: Algorithms, Data Structures, Database Systems, Software Engineering, Operating Systems, Machine Learning)

SKILLS

Programming Languages/Tools: Java, Python, C, C++, HTML, CSS, JavaScript, MATLAB, SQL, React
Applications: Front-end Web Development, MS Office, AutoCAD, LaTeX, Git, GitHub, WordPress, Canva

EXPERIENCE

Intern, LISUS Energy — Jun 2023-Jul 2023
Los Angeles

- Played a key role in a dynamic team of 2, performing extraction, processing, and temporal analysis of Evapotranspiration data.

Intern, Large Power Systems Division — May 2021-Jul 2021
Caterpillar Inc., India

- Collaborated in a team of 3 to develop an Ignition Delay Prediction Model for Compression Ignition (CI) engines using Python and Cantera, with the objective of integrating the model with the company's proprietary software.
- Improved program efficiency by optimizing the code, resulting in a reduction of program runtime by over 50% and enabling a more thorough analysis of engine failure.

Intern, Virtual Labs — Nov 2020-Jan 2021
National Institute of Technology Karnataka, India

- Spearheaded a team of three in ideating and developing 12 interactive simulations focused on Engineering Thermodynamics concepts, utilizing HTML5, CSS3, and JavaScript.
- Designed the project to help students, particularly those without access to well-equipped labs or instruments, understand the theory through captivating online resources and the ability to learn and apply concepts through remote experimentation.
- Contributed to improving educational accessibility by providing engaging and informative online tools that enable students to explore the concepts of Engineering Thermodynamics in a more interactive and comprehensive manner.

PROJECTS

JavaScript projects — Dec 2022-Jun 2023

- Developed a webpage that allows users to apply interesting filters to their uploaded images and customize their backgrounds.
- Developed a website that allows users to organize their entertainment journey.

Web Games — Dec 2022

- Utilized HTML5, CSS3, and JavaScript to develop digital versions of the classic games Tetris and Rock Paper Scissors.

Single Track Deposit geometry prediction using Machine Learning — Jan 2022-Apr 2022

- Oversaw a team of four in the implementation of data-driven Machine Learning models to predict the geometry of single-track deposits in Laser Directed Energy Deposition technique, utilizing Python and MATLAB.
- Attained a remarkable prediction accuracy rate of 98%, showcasing the potential to significantly enhance the quality of parts manufactured using Additive Manufacturing.

Beam Vibration Calculator and Plot Generation — Mar 2021

- Collaborated in a team of five to generate and plot vibration parameters for a cantilever beam, utilizing HTML5, CSS3, and JavaScript.

HONORS AND AWARDS

- Gold Medal for achieving the highest GPA among 174 students in the bachelor's degree program; Best Outgoing Student Award by the National Institute of Technology Karnataka Alumni Association (2022)

LEADERSHIP AND VOLUNTEER EXPERIENCE

- **Viterbi Graduate Orientation Leader; 'Women in Engineering' Website Manager**
- **Volunteer for** Water Drop LA, USC Viterbi SHINE program mentor (K-12 STEM Center), High-school Chemistry tutor
- **Content Writer and Content Writing Team Lead**, HackVerse: Successfully managed a team of 7 and coordinated with multiple other teams to oversee all content and logistics for a large-scale hackathon event, featuring over 700 participants (2020-2022)
- **Instructed** a group of 18 high school students in the development of public speaking and leadership skills through a comprehensive training program (2020); tutored elementary school students in English and Math (2019)
- Successfully completed beginner-level military training and attained the **rank of Corporal** in the National Cadet Corps, the youth wing of the Indian Armed Forces. (2018-2021)