KRITI SHUKLA

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Education

University of Southern California, Los Angeles, CA Dec 2024
Master of Science in Computer Science *GPA: 3.92/4.0*

National Institute of Technology Karnataka, India May 2022
Bachelor of Engineering *GPA: 9.65/10.0*

Relavant Coursework: Operating Systems, Computer Networks, Algorithms Analysis, Database Systems, Information Retrieval, Machine Learning, Software Engineering

Skills

Languages: Java, Python, R, C, C++, HTML, CSS, JavaScript, MATLAB, SQL
Tools and frameworks: Bootstrap, Git/GitHub, Linux/Unix, React, Node, Tableau, AWS, Matplotlib, Seaborn, Agile, Full Stack Web Development, MS Office, AutoCAD, LaTeX, WordPress, Canva, Data analysis, Data management, Pandas, Numpy, Machine Learning, Network Socket Programming, Operating Systems, Weka, KNIME, RapidMiner

Experience

Software Engineer Intern | *BIOMED, Los Angeles* Jul 2023 – Present
- Developing an AI chatbot for medibles.io; adeptly engages users, leading through a coherent sequence of questions, responses, and actions, ultimately guiding towards a purchase.

Website Developer and Webmaster | *USC Women in Engineering, Los Angeles* Jul 2023 – Present
- Created the USC Women in Engineering website, directly benefiting and engaging 2,440 members.

Microsoft TEALS program AP CS Teaching Assistant | *Microsoft TEALS, Los Angeles* Sept 2023 – Present
- Guiding and teaching 30 students in the Advanced Placement Computer Science class, Marco Antonio Firebaugh High School.

Software Engineer Intern | *LISUS Energy, Los Angeles* Jun 2023 - Jul 2023
- Analyzed remote-sensing satellite data (Evapotranspiration), involving extraction, processing, and temporal analysis, contributing to a tool for sustainable exploration of critical minerals.

Engineering Intern | *Large Power Systems Division, Caterpillar Inc., India* May 2021 - Jul 2021
- Rectified Ignition Delay Prediction discrepancy within company's software, improving engine failure analysis.
- Collaborated in a team of 3 to build an Ignition Delay Prediction Model for Compression Ignition (CI) engines using Python and Cantera.
- Streamlined code for >50% runtime cut, elevating program efficiency and analysis capabilities.

Web Development Team Lead | *Virtual Labs, National institute of Technology Karnataka, India* Nov 2020 - Jan 2021
- Spearheaded a team of three to ideate and create 12 interactive simulations focusing on Engineering Thermodynamics concepts, utilizing HTML5, CSS3, and JavaScript.
- Enhanced educational accessibility by creating online tools for remote Thermodynamics learning, catering to diverse students, fostering engaging, hands-on exploration and comprehension of theory.

Projects

Web Development Projects Dec 2022 - Present
- Built diverse projects, including an image filter webpage with customizable backgrounds, an entertainment organization website, and digital renditions of Rock Paper Scissors and Tetris games.

Token bucket emulation in C using Multi-threading Sep 2023
- Emulated a traffic shaper that transmits packets controlled by a token filter using multi-threading within a single process.

Meeting Scheduler application using Socket Programming Mar 2023
- Achieved optimal meeting scheduling capabilities by implementing a system using C/C++ on Unix, leveraging back-end and main servers (with TCP and UDP connections) to identify meeting times for participants based on availability.

Single Track Deposit geometry prediction using Machine Learning Jan 2022 - Apr 2022
- Led team of four to develop ML models (98% accuracy) predicting Laser Directed Energy Deposition's single-track deposit geometry, enhancing additive manufacturing product quality.

Graphical Representation of Free Vibration Nov 2021 - Jan 2022
- Collaboratively analyzed and graphically visualized free vibration of Cantilever beam (JavaScript).

Leadership and volunteer experience

- USC Viterbi Graduate Orientation Leader; USC Viterbi Student Engagement Team Social Media Manager; USC Women in Engineering Board member; QuEST, SWE, ACM member; Water Drop LA volunteer; USC Viterbi SHINE K-12 Program Mentor; Public Speaking and Leadership Trainer; High-school Tutor; Content Team Lead for a 700+ participant hackathon
- Won USC scholarship to participate in GHC'23; Won Gold medal in bachelor's degree program for highest GPA