Shreya Gundu

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Education

- **University of California, Davis** — California, USA
  Master of Science in Computer Science, ***CGPA:3.72/4*** — *Fall 2022 - 2024(expected)*
- **Indian Institute of Technology Bhilai** — Raipur, India
  Bachelor of Technology in Computer Science, ***CGPA: 8.72/10*** — *July 2018 - May 2022*

Skills Summary

- **Languages**: C, C++, C#, Python
- **Web Development**: HTML, CSS, JavaScript, NodeJS, React, Express, MongoDB, SQL, Material UI, TypeScript
- **Miscellaneous**: Solidity, AWS, ML, AI, Deep Learning, Git, Tableau, Shell, PyTorch, UNIX, TCP/IP, Wireshark

Experience

- **Software developer at DMLab** — Oct 2021 - May 2022
  Part-time
  - Developed and implemented a responsive and user-friendly UI for a video call application, enhancing the overall user experience and accessibility.
  - Utilized the Posenet library to seamlessly track and monitor live patient exercises during video calls, ensuring real-time data collection for accurate analysis.
  - Established robust data pipelines to efficiently process and analyze exercise data, resulting in streamlined workflows and improved data-driven insights.
  - Helped drive a 65% surge in user engagement while cutting monitoring costs by 20% and received recognition from Lionel Messi's physical therapist

Projects

- **Graduate Student Researcher at UC Davis** — June 2023 - Sept 2023
  Supervisor- Dr. Laura Marcu
  - Improved overlay detection for cancer cells as part of the "FLImBrush: dynamic visualization of intraoperative free-hand fiber-based fluorescence lifetime imaging" project.
  - Play a pivotal role in the project's architecture, leveraging a block-matching algorithm to pinpoint motion vectors.
  - Conduct a comprehensive test of a range of techniques, such as Exhaustive Search, Adaptive Rood Pattern Search, and Zero Mean Normalized Cross-Correlation scores to assess their efficiency.
  - Investigate the incorporation of NVIDIA optical flow to elevate motion correction precision, anticipating a 30% enhancement.
- **NFT Marketplace** — Oct 2022 - Nov 2022
  Course Project
  - Led a team of 6 to design and implement a Resource-efficient NFT Marketplace on Ethereum Amazon Web Services using Solidity, overseeing end-to-end development and personally contributing to the creation of smart contracts
  - Integrated seamless user authentication and implemented secure Ethereum wallet connectivity for frictionless transactions.
  - Achieved an exceptional (A) rating for usability and implementation, underscoring adept leadership and accomplished project oversight.
- **fybrrStore: A Distributed File Storage** — Feb 2022 - May 2022
  Supervisor - Dr. Gagan Raj Gupta, Associate Professor, Dept. of EECS, IIT Bhilai
  - Implemented a distributed file system with a centralized search index and metadata integration and deployed it using AWS Elastic Beanstalk.
  - Developed custom file pinning service to keep files available and redundant at all times.
  - Optimized load balancer configuration for a 15% improvement in latency using Grafana K6 load testing.
- **fybrrChat Lite: A Distributed Chat Application for Secure Messaging** — Jul 2021 - Aug 2021
  fybrrchat-lite.web.app/ - Not Maintained
  - Proposed an IPFS and WebRTC-based decentralized secure chat application which implements end-to-end encryption for the secure transfer of messages between peers.
  - Results show fybrrChat Lite works 97% faster than WhatsApp.
  - Received **Honorary Mention** in IEEE Global **ComSoc Student Competition 2021**.

Publications

- D. Halder, S. Bhushan, **G. Shreya**, and P. Kumar, **fybrrChat: A Distributed Chat Application for Secure P2P Messaging**, Jul 2022, IEEE Global Communications Conference 2022.