Som Wakdikar

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EDUCATION

B.S., The University of Texas at Austin, Austin TX (Class of 2024) **Aug 2021 – May 2024**
- GPA: 3.95/4.00, graduated early in 2½ years with High Honors
- Software Engineering and Design, Electrical & Computer Engineering

Honors Diploma, Texas Academy of Math and Science, Denton TX (Grades 11th, 12th) **Aug 2019 – May 2021**
- GPA: 3.95/4.00, early college residential program for high-school students
- Awarded for exceptional academic performance and completing 475 community service hours

EXPERIENCE

Embedded Software Engineer @ Lockheed Martin **June 2024 – Current**
- Developed next-generation F-16 mission software using Agile methodologies in C++ using Object Oriented principles
- Expanded current role to include successful implementation of GitLab CI/CD project pipelines to automate builds
- Demonstrated pipeline to all agile teams which resulted in a larger initiative to expand it to other software domains
- Reduced time spent for repetitive code conversion through python/bash scripting, regex

Software Engineer @ NASA **May 2023 – Aug 2023**
- Devised a unique solution to provide the CST-100 ground flight-control team with imagery from Boeing's Starliner
- Developed a wiki extension to export Artemis II+ crew training material to international partners (IP)
- Pioneered a VR ISS experience, Node.js web application, new features to flight displays, wiki projects, etc.

Systems Software Engineer @ NASA **Jan 2023 – May 2023**
- Rectified complicated deployment discrepancies between crew and ground displays by thoroughly understanding the architecture of software deployment for mission control displays
- Identified and corrected multiple issues in flight camera display overlays which required thorough analysis of python code, Linux-based deployment architecture, and other proprietary code

Quantum Transport Software Developer **August 2023 – May 2024**
- Developed a FOSS simulation to model nano-electronic devices in Julia, React
- Implemented and optimized a matrix inversion algorithm to run exponentially faster
- Refactored codebase with modularization, CI/CD, new interface and features, documentation, etc.

Propulsion Team Leader @ Design Build Fly (DBF) @ UT **Aug 2021 – Jan 2023**
- Led a team to optimize propulsion system selection, power management, wiring, wind tunnel testing, data analysis, propeller balancing, receiver programming
- Singlehandedly engineered an urgent solution to a parcel deployment system to complete the mission for our remote-controlled aircraft after other designs and plans had failed for the Systems Team
- Published a design proposal and report, placed top 10th in the international DBF competition hosted by AIAA

Engineering Research @ TAMS **Dec 2020 – Aug 2021**
- Stress/strain analysis of shear walls, created and tested cold-formed steel structures, modeled a 155-unit apartment

SKILLS

- Proficient in Python, Linux, Java, CI/CD DevOps using GitHub/GitLab, JavaScript, Julia, C, C++, React.js, OOD/OOP, Full-stack/backend/frontend development, Bash, debugging
- Exposure to Docker, Perl, Unity (VR), Jira, Agile methodologies: Scrum/Kanban, Ada, ARM Assembly, SQL, MongoDB, MATLAB, PCB designing, Autodesk Eagle, Autodesk Revit, Abaqus FEA

PROJECTS

- Fine-tuning an LLM: Successfully achieved a higher accuracy than GPT 3.5 Turbo on logical reasoning datasets
- Hardware Checkout: Leveraged MongoDB, Heroku, Flask, and JavaScript to create and deploy a full stack web app
- Kaggle Competition: Placed 2nd in Data Science Lab course competition for binary classification
- Weather Application: Java, Android Studio, Google APIs, Weka and tested on an android smartphone
- Augmented Welding: Computer Vision project using Python, OpenCV to simulate a welding path
- Embedded Systems (x2): Communication between two devices using RF technology; engineered a video game
- Earthquake Prediction: Python machine learning model to predict building damage after an earthquake