

Sarthak Bhatt

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SUMMARY

Dedicated and cooperative graduate student in computer science with a strong desire to comprehend computer mechanics. My skill spans a range of topics, from data structures to artificial intelligence, and is grounded in analytical thinking and problem-solving. I prioritize the development of clean, elegant, and robust solutions while emphasizing effective communication and teamwork. Actively pursuing full-time positions starting July 2023.

EDUCATION

Master of Science Degree in Computer Science, California State University, Sacramento	July 2023
Bachelor of Science Degree in Computer Science, UTU, UK, India	May 2016

SKILLS

- Programming languages and Platforms: C/C++, Java, Python, PostgreSQL, Bash, Batch Scripting, Linux, Windows, MacOS.
- Machine Learning: SVM, KNN, Logistic Regression, LSTM, CNN, TensorFlow, NumPy, Jupyter, Pandas.
- Web Technologies and Databases: JavaScript, HTML5, CSS, XML, MongoDB, Oracle, Angular, Microsoft SQL Server.
- Software tools: Docker, Git, CMake, QuickBuild, Jira, Kubernetes, Jenkins, Maven, AWS, Visual Studio, Tableau, Windbg

EXPERIENCE

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|---|--------------------------|----------------------|
| Core Graphics Software Engineer | Intel Corporation | Sept 2021 - Aug 2022 |
| <ul style="list-style-type: none">• Developed Intel Integrated/Discrete graphics drivers for Intel's present and upcoming platforms tailored for Windows primarily focusing on kernel-mode drivers and graphics memory management along with GPU Scheduling Firmware.• Developed proficiency with WDDM (Window Display Driver Model) APIs and delved into the graphics pipeline.• Collaborated in the implementation of Level-0 Sysman for Windows, telemetry, frequency, and power control.• Validation and debugging of the Intel GPU Graphics Driver under Virtualized Environments like KVM GT under Windows.• Resolved customer issues involving memory dumps, display screen corruption, timeout, and synchronization issues. | | |
| SAP HANA Developer | Waddaya Solution | May 2015 - Aug 2018 |
| <ul style="list-style-type: none">• Led data modeling and analytical view development in SAP HANA, emphasizing data management, reporting, and collaboration with the security team for holistic business process improvements.• Developed and deployed 20+ custom automation tools using Bash and Python; slashed effort reduction by 50%-60%.• Automated system backups and designed real-time monitoring alerts using shell scripting for critical systems.• Managed Linux-based production servers, ensuring production server uptime and optimal system performance.• Collaborated with the security team to perform regular audits, and vulnerability assessments and implement best security practices. | | |

PROJECTS

- GPU Telemetry Tool for Intel (C++, CMake, Git, QuickBuild): Designed Intel's GPU telemetry tool, capturing metrics such as core usage and memory bandwidth. Employed Intel's SDK for direct GPU interfacing, leveraging both continuous and event-driven sampling. Aggregated data for clarity and ensured efficient storage with real-time visualization. Further extended the telemetry tool with a CLI for enhanced debugging, achieving a 25% reduction in debug time.
- E-Signature management system for CalPERS (Python, JavaScript, PHP, MySQL, XAMP, OpenCV, Pillow) Conceptualized and deployed an E-Signature portal for CalPERS, emphasizing business process improvement, secure data management, and user-centric design. Application features: encrypted database, in-page signature drawing, two-factor user authentication, and password policies. The Backend of the application handles the elimination of noise from the image by reducing the aspect ratio, converting the image to grayscale, and applying canny edge detection to make the uploaded image usable.
- Autonomous Line Follower Robot (C, ATmega168 (Arduino Duemilanove), Motor Driver, Infrared sensor): Successfully designed and implemented a fully functional autonomous line follower robot using an ATmega168 microcontroller, motor driver, and infrared sensors. Utilized the ATmega168 microcontroller for movement control and infrared sensors for path tracking.
- A Dashboard for Canines Suffering from CHF (Python, Matplotlib, Plotly, NumPy, Pandas, Scikit-learn, Streamlit): Crafted a dashboard using Streamlit and Scikit-learn in Python that classifies the current condition of canines suffering from Congenital Heart Failure with **98% success rate** with features like generating PDF reports of the patient with interactive charts made in real time just after the user inputs.

PUBLISHED PAPER

Bhatt, S., Jain, P. (2016). **Face Detection & Color Detection Controlled WMR Using MATLAB**. *IJSER*, 7(01), 1601-1603