SHIVANI BHANDARI

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Education

UIET, Panjab University   Jul 2021 - Jun 2025
*Bachelor of Engineering in Electronics and Communication Engineering (**7.24/10.00 CGPA**)*   *Chandigarh*

Skills

- **Languages & Frameworks**: C++, Java, Python, C, React, Javascript, Typescript, React, Node.js, Flask
- **Developer Tools & Operating System**: Git, Github, VS Code, Eclipse, Google Cloud Platform, Linux, SaaS, Windows
- **Technical Acumen**: Machine Learning(NLP, RNN, CNN), Microsoft Azure, Looker Studio, Microsoft Power BI
- **Database Management**: RDBMS, MongoDB, MySQL, PostgreSQL, Advance Excel, Hadoop

Work Experience

Semiconductor Laboartory   Jun 2024 - Jul 2024
Summer Intern   *Mohali*

- As a Computer Operator Intern at Semi-Conductor Laboratory, I gained hands-on experience with the SEZ01 tool in wet etching processes. Developed problem-solving skills, troubleshooting and resolving equipment malfunctions to minimize downtime.
- Optimized process parameters to improve yield and quality, collaborating with engineers to implement process improvements.

Wrappid   Apr 2024 - Jul 2024
Software Developer   *Kolkata*

- Spearheaded development of high-performance C++ modules, boosting application speed by 30% and implemented efficient algorithms, slashing computational complexity by 50%
- Collaborated with senior engineers to refactor legacy code, improving maintainability and scalability.Debugged and resolved critical issues, ensuring seamless user experience

Design Innovation Center (MDaRT),UIET Panjab University   Jan 2024 - June 2024
ML/AI Intern   *Chandigarh*

- Pioneered an RCNN-based machine learning model for dental furcation image detection and classification, achieving 92% accuracy through veracious data cleaning, innovative feature engineering, and precise hyper parameter tuning.
- Seamlessly integrated the model with **Flask and React**, crafting a user-friendly interface for 100+ dental professionals and expediting diagnosis by 50%.

PGIMER, Govt of India   Jan 2023 − Mar 2024
Visual Analytics Specialist   *Link*

- Tailored a Project Monitoring Dashboard, collaborating with 5 engineers and medical professionals to craft 20+ data visualization tools, ensuring 99.5% data accuracy and 30% increase in stakeholder engagement.
- Streamlined data presentation, reducing analysis time by 40% and enhancing decision-making for 500+ users.

Envinova Smartech, Chandigarh   Feb 2023 − Jul 2023
SDE-I   *Chandigarh*

- As a Software Development Engineer, I crafted a visually stunning and user-friendly website for Smart Solar Hub, prioritizing accessibility and interactive design.
- By highlighting innovative features and benefits, successfully showcased the potential to transform outdoor spaces and boost brand interactions by 125%, demonstrating my expertise in developing engaging and effective digital experiences.

Projects

Document Scanning App   Link

- Spearheaded patient care with 99% accurate medical report scanning, processing 10,000++ reports monthly, flawlessly.
- Transformed patient care by deploying Anomaly Detection Module, pinpointing 90% critical anomalies, and slashing manual effort by 70%.

Heart Disease Prediction   Link

- Developed an SVM-based heart disease prediction model with 95% accuracy, utilizing a sigmoid kernel for optimal performance.
- Deployed a powerful Flask API on Thunder Client, streamlining risk predictions with a user-friendly interface, and turbocharging healthcare decisions with seamless integration.

Weapon Detection   Link

- Forged a trailblazing weapon detection system with YOLOv3 and OpenCV, catapulting accuracy to 95% and slashing false positives by 20%
- Exploited transfer learning to slash training time by 80% and boost performance by 95%. Unveiling a cutting-edge system that swiftly detects weapons and alerts authorities.

Ecommerce Website   **Link**
- Designed a user interface with a slider for filter selection, enhancing navigation for an improved user experience.
- Managed all operations, including logistics and customer support, ensuring 95% customer satisfaction.

Smart-Semiconductor-Fabrication-Simulator   **Link**
- Designed and developed a scalable, object-oriented system in C++ with a Qt-based GUI for editing process flows. Simulated up to 20 devices with unique logic, executing at 100 iterations/second.
- Optimized algorithmic complexity and memory allocation, achieving a 30% performance improvement. Ensured efficient data retrieval and storage, meeting project requirements.

Image-Classifier   **Link**
- Developed an image classification application using Azure Computer Vision, C++, and OpenCV, with a RESTful API using FastAPI
- The application classifies images with high accuracy, returning JSON responses with confidence scores. Demonstrated expertise in computer vision, API development, and cloud deployment.

Recognitions & Leadership Positions

- Contributed to GSSoC'24, earning a 140 points badge.
- Earned "Microsoft Learn Cloud Skills Challenge at Build 2024" badge, developing practical cloud skills through interactive labs and challenges.
- Acquired Rank 10th in Consultathon 4.0 by BITS Pilani, K.K. Birla Goa Campus.
- As ML Sub-Head for GDSC UIET, Chandigarh, orchestrated a team of 10 members, orchestrating 5 workshops and 2 hackathons, directly engaging over 100 participants.
- Graphic Designer Head for GOONJ'23: FEST of UIET, Panjab University, Chandigarh.

Key Courses Taken

- **Computer Science:** Computer Architecture & Organization, Design & Analysis of Algorithms, Data Structures & Algorithms, Database Management Systems, Operating Systems, Computer Networks, Software Engineering, Machine Learning

- **Data Science & AI:** Statistical Inference, Optimization, Reinforcement Learning, Multi-modal Deep Learning Mathematics: Number theory & Linear Algebra, Probability theory & Random processes, Discrete Mathematics, Multivariate Calculus, Differential Equations, Optimization

- **MOOCs & Miscellaneous Certifications:** Deploy applications with Azure DevOps (Microsoft, 2024); Building an LLM and RAG-based chat application using AlloyDB AI and LangChain (Google developers, 2024); Machine Learning Specialization (Coursera, 2022); Python Fundamentals (Great Learning, 2021)