

APOORV MALIK

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SKILLS

- **Languages & Tools** - C++, Python, Dart, C#, C, HTML, CSS, JS, EJS, TensorFlow & Keras, Scikit-Learn, OpenCV, Flask, Node.js, Express, jQuery, Bootstrap, MongoDB, Docker, Flutter, Firebase, Unity, OpenGL, Figma, Git/GitHub, Linux/Bash
- **CS Fields & Related Interests** - Software Development (Mobile, Desktop and Web), Machine Learning & AI, Computer Vision, Data Structures & Algorithms, Computer Graphics & Game Development, UI/UX Design, Leetcode

EDUCATION

Oregon State University

Master of Science (MS) in Computer Science (GPA = 3.91)

Corvallis, OR, USA

September 2022 – Present

Maharshi Dayanand University

Bachelor of Technology (BTech) in Computer Science & Engineering

Rohtak, HR, India

September 2016 – September 2020

EXPERIENCE

Dept. of Computer Science at Oregon State University

Teaching Assistant for CS 325 - Algorithms

Corvallis, OR, USA

March 2022 – Present

- Taught topics like Dynamic Programming, Graph Algorithms, and Complexity Analysis by conducting weekly tutorial sessions, guiding students through complex problem-solving exercises (in Python), and significantly improving students' understanding.
- Graded assignments and exams, providing constructive feedback to a class of over 90 students and collaborated closely with the course professor to design and modify course materials and assignments.
- Regularly held office hours to address individual student's questions and maintained effective communication with students and staff, demonstrating excellent interpersonal skills.

Dept. of Computer Science at Oregon State University

Research Assistant (mentored by Prof. [Liang Huang](#))

Corvallis, OR, USA

December 2022 – Present

- Developed and currently maintaining 5 [web servers](#) hosting various RNA folding algorithms (invented by the research team).
- Optimized the existing frontend of the web application leading to improved SEO, which contributed to a 160% increase in traffic, thereby enhancing the accessibility and utility of our scientific findings.
- Refactor and rebuild the (backend) codebase of the RNA algorithms (written in C++) to optimize for performance and scalability.
- Contribute to publications in Computer Science conferences and journals. 4th author of one [research paper](#).

Twyn (Previously Known as Marj Technologies)

Software Development and Machine Learning Engineer

Noida, UP, India

January 2020 - August 2022

- Developed 3 IoT-based full-stack Industrial Automation and Quality Control applications for Non-Contact Dimensional Inspection, OCR, Parameter-based PA check, Object Classification, Quality Inspection, and Bar & QR code scanning.
- Contributed to the startup's seed funding of \$328K and helped achieve a valuation of \$3.7M by completing 4 projects for multiple clients of Marj (Ask Fris-le Friction, Minda Group, Samsung India, and JBM).
- Interviewed 30+ job applicants for AI & Software Development positions and further built & managed the core team of 8 developers for product development. Implemented agile development methodologies, such as Scrum, to improve team efficiency.
- Led cross-functional teams of developers to deliver software projects on-time and within budget, provided mentorship to 3 junior developers to improve their skills, and motivated team members to achieve common goals.

CERTIFICATIONS

- **Udemy - 2021 Flutter Development Bootcamp:** [Certificate Link](#) January 2022
- **Udacity - Artificial Intelligence Nanodegree:** [Certificate Link](#), [GitHub Repository Link](#) June 2020
- **Udacity - Machine Learning Engineer Nanodegree:** [Certificate Link](#), [Github Repository Link](#) August 2019

RELEVANT PROJECTS

- **Machine Learning Engineer Capstone Project:** Inspired by game playing agents, developed an algorithm for training an AI agent using deep reinforcement learning to beat the game of Atari Breakout. ([GitHub Repository Link](#))
- **Chess Game:** Developed from scratch in Flutter and C++ (Chess Engine). Made use of bitboards (binary strings) for fastest move generation. Implemented support for (NegaMax algorithm) AI and online multiplayer. ([GitHub Repository Link](#))
- **Teachable Image Classifier:** Similar to Google's teachable machine, this project provides a visual interface for training Deep Learning models by allowing users to create classes, add image samples, and set training parameters. ([GitHub Repository Link](#))
- **Ask Fris-Le Friction PVT. LTD:** Created an application to perform dimensional analysis and classification of brake liners. Multiple vision cameras above the conveyor line calculate the dimensions of an incoming part, which is then further analyzed to classify it as ok or not good (based on some tolerance level).

VOLUNTEER EXPERIENCE

- **Explore ML DSC Facilitator:** Conducted 5 workshops in my undergrad university to introduce and teach Machine Learning. Explore ML is a Google sponsored program for university students to get started with ML. ([Certificate Link](#))
- **Vedic Life Foundation (NGO):** Developed a mobile application (iOS & Android) to teach meditation, enroll members, and record meditative sessions. It features a social-media to share thoughts, ask questions, and share meditation progress.