Siddharth Sharma

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Work Authorisation: UK and India

EDUCATION

Heriot-Watt University   **2022- 2023**
MSc in Artificial Intelligence (2:1)   *Edinburgh, UK*
Key Learnings: Gained proficiency in genetic algorithms, behaviour-based and evolutionary robotics, multi-layered Artificial Neural Networks, and conversational agent design.
Final Thesis: Arion Bright - The Elder Scrolls V: Skyrim Conversational Agent (Prompt Engineering, Chat-bot with distinct personalities, Voice Interaction)

Narsee Monjee Institute of Management Studies (SVKM-NMIMS), MPSTME   **2014- 2018**
Bachelor of Technology. Computer Eng.(2:1)   *Mumbai, India*
Key Learnings: Developed foundational knowledge in AI, data structures algorithm design, computer architecture, software engineering, and object-oriented programming.

Technical Skills

Programming Languages: Python, C, C++, Java, C#, .NET, SQL, NoSQL, Apex, Visualforce, Lightning, JavaScript, HTML, CSS, XML.
Platforms, Tools, and Software: Salesforce, Unity3D, Android Studio, Visual Studio, MongoDB, MySQL, Linux, Windows, VS Code, MATLAB, Retool.
Methodologies: Game Programming and Design, OOPs, Software Engineering, Data Structures and Algorithms Design. API Integration, Database Management
Advanced Methodologies: Machine Learning, Deep Learning, Computer Vision (OpenCV, Mediapipe), Artificial Neural Networks, Robotics, GAs, ERs, Prompt Engineering,

WORK EXPERIENCE

The Honest Company.   **Jan 24 - Present**
*Position: Lead Developer (**Python, Machine Learning, API Development, Database Management**)*   *Edinburgh, UK*
- Developed a machine learning model for plant disease detection using the **plant_village** dataset, leveraging over 54,000 (including augmented) images of healthy and diseased leaves.
- Fine-tuned using **TensorFlow**, **Keras**, **NumPy**, and **scikit-learn**, **MobileNet v2 model** with **ImageNet** pre-trained weights, achieving an accuracy of 0.9522 after 12 epochs and 500 steps.
- Integrated the model into a mobile app using **FastAPI** and designed a full **database structure** using **Retool** with **SQL**, building an admin panel for seamless database management.

SRKMG Pvt. Ltd.   **Sept 19 - June 21**
Position: Senior Engineer   *Jaipur, India*
- Developed and implemented integrated work processes to enhance efficiency and project management.

IRT Digital Analytics Solutions Pvt. Ltd.   **July 18 – Aug 19**
*Position: Associate Consultant (**Salesforce, Apex, Visualforce, Lightning, Web Development, Prototyping**)*   *Mumbai, India*
- Served as the sole developer for East-West Seeds, enhancing and revamping functionalities using **Apex, Visualforce, CSS,** and **XML** to align with evolving business requirements.
- Prepared the groundwork for transitioning from Salesforce Classic to Lightning, significantly improving UX/UX using **Apex, Visualforce, Lightning, JavaScript, HTML, CSS,** and **XML**.

Appiro, Wipro Technologies   **June 17 – July 17**
*Position: Software Development Intern (**Salesforce Sales Cloud{admin}, Project Management.**)*   *Jaipur, India*
- Utilised **Salesforce Sales Cloud** to create a user-friendly platform and optimise recruitment procedures for an employer and job seeker app as a solo project.

PROJECTS

Arion Bright - AI-Powered Conversational Agent (ChatGPT API, Prompt Engineering, Analysis Techniques)
- Developed a Skyrim-themed **AI conversational agent** using **prompt engineering** and **ChatGPT**, featuring distinct AI personalities with **multi-modal interaction** (voice and text)..

Game Development Projects (Unity3D, C#, 2D & 3D Game Development, Game Design)
- **Joe's Adventure**:Designed a **Unity3D** game using **C#**, implementing intricate movement systems and challenging levels inspired by Prince of Persia and Mirror's Edge. Conducted iterative **playtesting** for user experience improvements.
- **Pokémon-inspired 2D RPG Game**: Built a turn-based role-playing game from the ground up, adding combat sequences, AI for the enemies, and Pokémon switching abilities.All scripting was done in **C#**.

Cozmo Robot Demo (Python, OpenCV, Google Mediapipe, Cozmo SDK)
- Developed a memory game to help older people's cognitive abilities and implemented **object tracking** using **OpenCV** and **Google Mediapipe** in **Python**. A feasibility study verified the design of a data-sharing system for monitoring game results.

Breast Cancer Detection Model (Python, NumPy {for data manipulation only}, Artificial Neural Networks{ANNs})
- Engineered a custom multilayer **ANNs** from scratch in **Python** for breast cancer classification, achieving **close to 90% accuracy** on the **UCI Breast Cancer** dataset. Emphasis on fine-tuning hyperparameters and thorough experimental analysis.