# **Prajwal Mhatre**

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#### SUMMARY

Adaptable entry-level software engineer with strong problem-solving skills. Successfully balanced a master's degree, teaching assistant role, and startup internship, showcasing independence and multitasking abilities. Dedicated to driving projects forward with focus and effort.

# **WORK HISTORY**

# Software Developer Intern | OpenQQuantify

Mar 2025 – present Aug 2024 – Dec 2024

- Design and created company's website to showcase its multi-agent LLM model, leveraged by founder to use as part of pitch deck to get seed funding.
- Implemented a multi-agent pipeline that transformed foundational LLM models into intelligent agents using fine-tuning, RAGs orchestrating their communication to collaboratively generate solutions with reduced hallucinations.

# Research Thesis | Clemson University

Jan 2024 – Aug 2024

- Implemented a custom distributed neural network from a research paper using PyTorch and CUDA, enabling power usage benchmarking against standard models on a single GPU.
- Researched and implemented a solution to measure power consumption during neural network training, enabling energy-focused model comparisons and revealing that deeper models consume more power on a single GPU.
- Created a visualization tool to convert logged power consumption metrics into clear charts, used as the benchmark for research direction.

# Teaching Assistant - Signals and Systems | Clemson University.

Aug 2023 - May 2024

- Graded 100+ students, 3 assignments per student each week and 1 MATLAB assignment task every two weeks.
- Addressed student doubts by engaging in effective communication to understand their challenges, making effort to identify gaps in their fundamentals, and guide them with tailored supplementary topics, YouTube tutorials, and useful resources to ensure their future understanding of the course.

# **EDUCATION**

**Masters in ECE focus intelligent systems**: Clemson University – GPA – 3.7/4 **B.E in Electronics and Telecommunication**: Mumbai University – CGPA – 7.52/10.

Completed - Dec 2024

Completed – Aug 2022

#### **PROJECTS**

# **Android-Studio – IOT based application** | Mumbai University.

Aug 2021 - May 2022

- Designed and developed a mobile app in Android Studio that wirelessly controlled movement of a fire-extinguishing robot and displays a real-time camera stream.
- Integrated with Firebase cloud to store and manage sensor, movement, and camera data to enable future data-driven insights.
- Project ranked top 10 out of 160 in the selection round for the Smart India Hackathon

# Unity Game - Drag & build brick Tower

Oct 2020 - July 2021

- Designed scalable architecture using Singleton and Object Pooling across systems to coordinate spawning, UI, and gameplay flow
- Created a brick management module supporting 100+ objects with capped memory use via prefab reuse and runtime tracking.
- Implemented event-driven systems using delegates, coroutines, and vector math to handle timed behaviors and spatial logic.
- Developed 30+ Unity scripts in C# with OOP principles, ensuring clean separation and scalability for growing game complexity.
- Designed 10+ brick types, 9+ obstacles, and 4+ weather effects (with object interaction) using abstraction to enable scalable future additions of new variants.

# **SKILLS**

Data Science & Machine Learning: Data Cleaning & Wrangling, Representation Learning, Ensemble Learning, Transfer Learning, Distributed Learning.

**Programming Languages**: Python , R ,C,C#, C++ , Embedded C , Java , ARM Assembly , MATLAB.

Tools & Frameworks: TensorFlow, PyTorch, Scikit-learn, Keras, NumPy, Pandas, CUDA, MPI, OpenMP, XML, Matplotlib.

Mathematics: Linear Algebra, Multivariable Calculus, Advanced Statistics, Probability.

Software: Android Studio, PyCharm, RStudio, VS Code, Blender, MATLAB, Photoshop.