

# Amey Athavia

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## EDUCATION

**The University of Texas at Dallas**, *Master of Science, Computer Science*

Dec 2023

**Savitribai Phule Pune University**, *Bachelor of Engineering, Computer Engineering*

May 2021

## SKILLS

**Operating Systems:** Windows, Linux

**Programming Languages:** Java, Python, C++, PyTorch, JavaScript

**Database Technologies:** MYSQL, Oracle, SQL Server, NoSQL

**Technology Frameworks:** HTML, CSS, Bootstrap, Django, Node JS, React JS, Express JS

**Other Technologies:** Git, SDLC, LeetCode, Agile, Shell Scripting

## PROFESSIONAL EXPERIENCE

**Bioinformatics at University of Texas at Dallas**, Dallas, USA

Jun 2023 – Dec 2023

*Research Assistant (SWE)*

- Developed software solutions to analyze DNA data using object-oriented programming in Python as the primary language.
- Performed statistical analysis, data preprocessing and data visualization on genomic data using data structures and data science libraries including Pandas, NumPy, SciPy and Matplotlib.
- Collaborated with the team to refactor existing codebase, applying OOP design to improve code organization and scalability as well as using Git for version control and collaboration.

**Bubble Insurance Inc.**, Remote, India/USA

Jan 2021 – Jun 2021

*Data Engineer*

- Independently preprocessed datasets of millions of entries using the NumPy, pandas and NLTK python libraries.
- Utilized TensorFlow and matplotlib for data visualization and analysis.
- Applied programming techniques and advanced data structures and algorithms to optimize and improve the application.
- Using Agile methodology to work with a team on software development.

## ACADEMIC PROJECT EXPERIENCE

**Modified Morris Nine Men's using Game Trees**

Jan 2023 – May 2023

- Developed a modified version of Nine men's Morris game using game trees, minimax algorithm as well as AB search trees and employed the use of object-oriented programming in python.
- During the development of this project helped me better understand the concepts of OOP and the use of a software development life cycle. It also helped me understand the concepts of game trees and the use of advanced data structures.
- Utilized the version control feature of Git to maintain the code files.

**Object Detection, Tracking in Video Surveillance (Paper Publication)**

Nov 2020 – Mar 2021

- Developed a cutting-edge machine learning model utilizing Python, TensorFlow, SciPy, OpenCV to engineer a solution for real-time object detection and tracking using computer vision.
- Led the development for this project and was responsible for applying the machine learning algorithm and using OOP to concepts of inheritance and polymorphism.
- Organized the project responsibilities and prepared a schedule and timeline that best fits the group members.

**Booking and management system**

Jan 2020 – Mar 2020

- Transformed a robust management system capable of efficiently storing, retrieving, and seamlessly displaying historical bookings while empowering users with cutting-edge functionality to secure train or flight reservations.
- Led the charge in interfacing with the database, expertly executing intricate queries via a dynamic front-end solution meticulously crafted with JDBC and harnessing the power of MongoDB as a SQL server.