Jay Mehta

Mumbai 400022 | jmehta1@ucsc.edu | +91 9892526651| https://www.linkedin.com/in/jay-mehta-12963116b/

EDUCATION

University of California, Santa Cruz, USA **September 2022**
Master's in Computer Science

Mumbai University, India **June 2022** *(awaiting)*
Candidate for Bachelor of Engineering in Information Technology with *Distinction* **(CGPA 9.0/10)** *(≈expected)*
Relevant Courses: Data Structures and Analyses, Advanced Data Management System, Operating Systems, Data Mining and Business Intelligence, Cloud Computing and Services, Artificial Intelligence and Software Design.

Pace Junior College, Mumbai, India **June 2018**
Secured *Distinction* in Higher Secondary Certificate Examination **(84%)**

PROFESSIONAL EXPERIENCE

Saint Louis University, GlobalShala, Mumbai, India **October 2021 – November 2021**
Data Visualization Intern

- Worked in team of 5 members with real world data and inferred statistical analysis on a given dataset for ad-campaigns to eliminate the campaigns with poor performance, based on factors of Cost per click, Frequency of the ad, Viewership age group, Reach of the ad, and Unique clicks.
- Designed visualizations, to justify each decision, using Python PyPlot, Microsoft Excel and Tableau and presented to the project heads as well as the Finance department.

Grroom, Mumbai, India **July 2021 – September 2021**
Machine Learning Intern

- Managed tasks related to the pipeline of Machine Learning, which included annotating images, web scraping, model training and model testing using Python, TensorFlow, Google-colab, LabelImg.
- Collaborating with team members to learn about the code and its implementation and fix bugs/errors in codes with respect to the model.

LetsAlign, Mumbai, India **November 2020 – May 2021**
Software Development Intern

- Led as a designer and developer to build IVAs (Intelligent Virtual Assistants) and worked on their integration on platforms such as WhatsApp, Web and Facebook under Haptik projects, for companies such as Eurokids, ISPP (Indian School of Public Policy), Fortis Healthcare, LivPure.
- Worked as a web developer (front and back-end) under Shopify projects, managed websites by adding design changes to front-end, launching new product pages, handling errors, and adding functionalities on the backend of businesses such as WellBeing Nutrition, Gaya, Vardenchi.
- Performed a detailed analysis by noting the prices across platforms such as Amazon, Flipkart, AliExpress and Facebook, then calculated commission, taxes, and reviews for each to get a better idea of the cost price of the products on most popular online selling platforms for the JoyStore project.
- Drafted policies for the BuySwadeshi store which was initiated by the company (LetsAlign) and interacted with retail manufacturers to expand the store's reach.

Blue Eye Soft Corp., Mumbai, India **June 2020 – April 2021**
Privacy Preservation and Data Mining Research Intern

- Built a mobile application (https://sakec.ai/) to aid against Covid, worked on different modules of the application such as visualization of data, background services such as the 'Contact Tracing' which used the Google-Apple API.
- Created and delivered weekly presentations and reports based on the progress on the application and its future scope to the CEO and other stakeholders from international offices.
- Researched about the Privacy Preservation concept on various other applications developed globally and studied the work of professors like Dr. Dara Rozita, Dr. Benjamin Fung to gain insights about their existing work and privacy achieved.
- Appointed as a student mentor and oversaw a team of 6 members that participated in the Global Def Hackathon that was hosted at Baku, Azerbaijan and represented the company to pitch its Differential Privacy Algorithm.
- Authored a paper titled 'Homomorphic Encryption in Healthcare Analytics' which discusses about the general encryptions used in the healthcare sectors in the current times and proposes the need of a Homomorphic Encryption that will benefit this sector.

All Online Courses & Certifications done are listed on LinkedIn profile, link on top.

ACADEMIC PROJECTS AND PAPERS

ASL (American Sign Language) Tutor

- Developed a mobile application using Deep Learning tools such as Keras, TensorFlow and Darknet and enabled it to recognize gestures from the American Sign Language and obtain a confidence score as to how accurately the model predicts the shown gesture.
- Performed the role of a developer and incorporated features such as providing an efficient way to extract features from images, building the UI, researching, and analyzing bugs in code.
- Technologies used: Python, CNN, TensorFlow, OpenCV, Darknet, YOLO, Android Studio, Kaggle, and Google Colab.
- Received appreciation from industry experts and from NYU alumni who were pursuing Master of Science degree in the US during the review of projects.
- Authored and published a paper on the same, at the 'IEEE 2021 International Conference on SMARTGENCON' in October 2021. https://doi.org/10.1109/SMARTGENCON51891.2021.9645843

Business Intelligence on prediction of Covid vaccinations

- Built a model to predict the number of vaccinations that would be achieved by any country in the future and facilitated business decisions based on the findings.
- Played an instrumental role as the Lead developer and worked on all major aspects of the project such as cleaning the dataset, visualizing correlation amongst the data, and making statistical inferences.
- Employed algorithms such as Linear Regressor, Random Forest, to predict the outputs, implemented and researched about the use of a time series algorithm such as ARIMA to enhance prediction accuracy in a time series event.
- Technologies used: Python, Kaggle, Pandas, NumPy, and ARIMA.

Differential Privacy Algorithm

- Engineered a model to randomize the output of the queries posted by analysts to the database's curator such that it is usable for analysis as well as provides privacy to the users, thereby eliminating any background information gained through public datasets, that breaches the privacy of the users.
- Researched about previous work in the privacy field and incorporated the Laplace mechanism in the algorithm that introduced noise in the data, as a developer.
- Technologies used: Python, Anonymity Models, NumPy, Regex, Random Forest, Laplace noise, MySQL, and Haberman's survival dataset.
- Participated in a Global Def Hackathon in 2020 in Baku, Azerbaijan and received appreciation from the judges.

A-star path finding algorithm

- Implemented an algorithm that allows one to find the shortest path between two grid points after manually creating barriers or constraints on the grid, through which the algorithm cannot cross.
- Developed a colorful Graphical User Interface which visualizes the algorithm's movement across the grid.
- Technologies used: Python, TKinter, Pygame, Jupyter notebooks.

Utilization the Internet of Things for Smart Methodology to Monitor Health Care

- Formulated a methodology that can capture and send it to a cloud that stores it for the user to access it through Internet. Added sensors connected to a single microcontroller for the same.
- Authored and published a paper on the same in a local journal Mat Journals in Journal of Controller and Converters in September-December 2020, Volume 5, Issue 3.

TECHNICAL SKILLS

- Programming Languages: Python, C, C++, HTML, CSS, NodeJS, JavaScript, MySQL, JSON.
- Cloud-based technologies: AWS and Docker; Machine Learning tools: Scikit-Learn, TensorFlow, Keras, PyTorch.
- Mobile Application Development: Flutter, Dart and Java.
- Software: AutoCAD, MATLAB, Wireshark, Android Studio.

EXTRA CURRICULAR ACTIVITIES

- Interned at The Art of Living in association with IAHV (International Association for Human Values) on a Watershed Management program in Maharashtra in 2019-20. Worked on the geographical maps of districts and identified land depressions with the help of previous years data, using AutoCAD and Google Earth Pro.
- Attended an aero-modeling workshop at the KJ Somaiya University, built a physical model using a software named 'xflr5' and tested its flight in the presence of a professor from IIT-Bombay, from 2018-19.
- Participated in workshops and webinars such as AWS and Docker conducted by ACM (Association for Computing Machinery) in 2020 and Mathematics for AI organized by CSI-DBIT in 2020.
- Volunteered in helping disabled students at the SIES College of Arts, Science and Commerce and contributed to help stray animals in feeding, medical aid and adoptions as a part of YODA Rehabilitation Centre for Animals, since 2020.