

Sunjit Dhillon

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Availability: May 2022 - December 2022

EDUCATION

Northeastern University, Boston, MA September 2020 to Present
Expected May 2023
Candidate for a Master of Science in Computer Science, GPA: 4.0/4.0
Related Courses: Algorithms, Database Management Systems, Object-Oriented Design, Data Structures, Algorithms and their Applications Within Computer Systems, Intensive Foundations of Computer Science, Discrete Mathematics and Data Structures.

Punjab Agricultural University, India. August 2017 to February 2020
Master of Science in Microbiology, GPA: 9.2/10.0

TECHNICAL KNOWLEDGE

Languages: C, Java, Python, R, SQL, SQLite, XPath, XQuery
Operating Systems: UNIX, Macintosh OS, Windows

PROJECTS

Job Portal

XN Rising Project – CS5965 August 2021

- Worked with 'EduGion' to research and design an aesthetically appealing, exciting and invigorating job portal to make the hiring process efficient for both the employee and the employer.
- The portal is designed from a global perspective and supports features to highlight relevant skill sets of a candidate which are not addressed through traditional resumes and cover letters.

PubMed Catalogue Data Mining

Database Management Systems – CS5200 July 2021

- Designed a normalized relational OLTP database and populated with data from an XML PubMed catalogue.
- Added normalized schema fact tables and converted the normalized schema into a denormalized schema suitable for OLAP (data warehouse) and used the OLAP star schema for data mining.

Bird Strikes in United States Visualization

Database Management Systems – CS5200 June 2021

- Developed a logical data model and relational schema in MySQL in Boyce Codd normal form (BCNF) that can be used to analyze bird strikes incidents on aircrafts in United States from year 2000 to 2012.
- Loaded data from .csv file to the database, executed SQL queries and analyzed the data.

Easy Animator

Object Oriented Design – CS5004 April 2021

- Developed an animator using the Model, View, Controller (MVC) architecture in Java that reads text input and generates animations in visual, text, SVG and playback view with additional functionality to play, pause, resume, loop, increment and decrement speed of animations.
- The user interface includes additional functionality to add or delete shapes from the animations and save animations as text or SVG files

Miniature Command Line Interface

Data Structures, Algorithms and their Applications Within Computer Systems – CS5008 March 2021

- Developed a C script using a signal handler and forking processes to run a mini shell with most of the Unix terminal commands.
- The shell supports multiple sub-shells and runs a number guessing game.

Memory Card Match Game

Intensive Foundations of Computer Science – CS5001 December 2020

- Developed a card match game – aka Memory card game using Python's turtle library that allows users to select card decks, number of cards from decks and lists the names of top players.

Discover – A Mobile App Prototype

MTV Creative Jam Live November 2020

- Developed the prototype and UI design for a mobile app titled 'Discover' using Adobe XD.
- The app highlights the struggles and lifestyles of various colonized populations and includes resources to support their local culture.

PROFESSIONAL EXPERIENCE

Verka Milk Plant, Ludhiana, India

Quality Assurance Analyst January 2020 to May 2020

- Tested and maintained microbiological parameters of milk and milk products.
- Ensured good manufacturing practices, HACCP, proper quality maintenance throughout the production pipeline.

Punjab Agricultural University, Ludhiana, India

Research Assistant, College of Basic Sciences and Humanities August 2017 to December 2019

- Optimized the bioprocess for batch scale, semi-continuous and continuous fermentation for production of beverages with functional starter culture.
- Experience with HACCP, pilot plant, fermentor, vacuum packaging, SEM, TEM, gel electrophoresis, real time PCR, digital PCR, X-ray diffractometer, freeze drying system, and upstream, downstream fermentation processes.

PUBLICATIONS

- Fermentation of sapota (*Manilkara achras*) into wine: <https://doi.org/10.1111/jfpp.14577>
- Comparative growth of fermenting yeast strains on glucose yeast extract and honey based yeast extract broth: <http://dx.doi.org/10.5958/2395-146X.2020.00131.3>

INTERESTS

Passionate about outdoor activities, music, art and craft, fitness and painting.