Khushi Lad

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EDUCATION

University of Alberta, Edmonton | Edmonton, AB *Expected Graduation May 2026*
BSc with a specialization in Computing Science *GPA: 3.8*

Coursework: Data Structures, Algorithms, Databases, Software Design, Discrete Mathematics, Data Science, Linear Algebra, Probability and Statistics, Calculus ll, Project Based Classes, OOP, Regression Techniques, Analysis of Variance and Covariance, Data Analysis, Machine Learning

SKILLS AND TECHNICAL TOOLS

Languages: Python, JavaScript, SQL, C, HTML/CSS, Express, ReactJS, Java
Technologies: Git, GitHub, REGEX, Bash Scripting, Unix environment, MongoDB, Firebase, scikit-learn

EXPERIENCE

Coding Instructor | Code Ninjas *July 2023 – Present*

- Teach students the fundamentals of programming, problem solving, and algorithm design using the IMPACT platform which works them through block-based coding, JavaScript, and C# while building their own games and applications.

CERTIFICATIONS/COURSES

Google IT automation with Python Professional Certificate

- **Using Python to Interact with the Operating System:**
  Automating System Administrative Tasks, Testing, Setting up Developer Environment, Regular Expression (REGEX)
- **Git and GitHub:**
  Use and interact with Git, Creating Pull Requests, Reverting Changes, Version Control Systems

PROJECTS

Events Management App | *java, Firebase, Google Cloud*

- Building a large-scale java application in a team of 6. Our project is to create an event management system where attendees check in using QR codes on their mobile devices. Organizers can track attendance, manage event details, and send notifications.
- Integrated Google Maps for event location and attendee tracking
- Utilized MVC and Factory design patterns

GymBuddy | MERN (React.js, Node.js, MongoDB, Express.js,) , Redux, JWT (JSON web Tokens)

- Social media app that encourages users to post about their physical achievements
- Utilizes hashtags to filter posts to help keep track of progress
- Optional image upload (server side uses Multer to store images, with source stored in database)
- Uses the MERN stack for the application. Uses JWT to authorize certain pages to users with certain permissions.
- Utilized the MVC design pattern

Spam Detector | python, Jupyter notebooks, NumPy , Pandas, Scikit-learn

- Built a model with the Naïve bayes algorithm that predicts whether or not an email is spam using the body of the email
- Utilized various python modules to extract data from Web APIs
- Split data into Training, Validation, and test sets to train model
- Used Streamlit to host application

COURSE WORK – team project:
SQL/Python and MongoDB

- Built a system that keeps the enterprise data in a database and provides services to users through a menu on the command line. Specifically in this project the users could login or signup and the database contained information on users and tweets, and an example of a service was retrieving the latest 5 tweets from all the people a specific user follows. Built a very similar system with a MongoDB database instead of SQL.
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COURSEWORK

Highlights: Gained valuable experience in data structures and algorithms, C, Python, SQL, JavaScript Mongo DB, GIT and working with a team through projects in various classes.

ALGORITHMS I:
Algorithm design and analysis; divide and conquer; dynamic programming; greedy methods, backtracking, and local search methods; analysis techniques to estimate program efficiency.

PRACTICAL PROGRAMMING METHODOLOGY:
Fundamental principles of software engineering based on abstract data types and their implementations; C language; Software Development tools of the Unix Environment

FILE AND DATABASE MANAGEMENT:
Data organization and information processing; entity-relationship model; relational model; SQL and other relational query languages; storage architecture; physical organization of data; access methods for relational data