

JAISAL MEHTA

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EDUCATION

Indiana University – Bloomington

May 2025

Bachelor of Science in Computer Science - Specialization: Software Engineering

Minors: Business, Data Science, Systems Engineering

Courses: Object Oriented Programming, Discrete Structures, Data Structures and Algorithms, Systems Programming in Unix, iOS Application Development, Computer Structures, Advanced Algorithms, Introduction to Computer Networks, Introduction to Data Analysis and Mining, Data Representation, Introduction to Statistical Inference, The Computer in Business

PROFESSIONAL EXPERIENCE

Serve IT, Bloomington, IN

August 2023 – December 2023

UX Design Intern

- Collaborated with a **multidisciplinary team** to redesign Tandem Birthing Center's website, contributing to the **UX design** process through **wireframes**, **prototypes**, and **mockups**
- Conducted **user research** activities, including **usability testing**, to gather insights informing **design decisions** and enhance **user experiences** tailored to the Bloomington community, while also supporting the development and maintenance of **design systems** and **style guides** to ensure visual consistency and reinforce **brand identity** across projects

Viant Medical, Wheeling, IL

June 2021 – July 2021

Manufacturing Engineering Intern

- Created **validation reports** for medical manufacturing machines, ensuring oil changes met customer demands and production requirements while maintaining a clean **Oracle database**
- Analyzed medical components and generated **statistical reports** in **Minitab** to ensure compliance with client specifications

TECHNICAL PROJECTS

Brain Tumor Classification

March 2025 – April 2025

- **Built and evaluated classification models (k-NN and Decision Tree)** on 3,328 brain MRI images, achieving **up to 85% accuracy** in detecting tumor types including glioma, meningioma, and pituitary
- **Preprocessed and labeled over 3,000+ medical images** using **CV2** and **PIL**, reducing image dimensionality

Patient System Application

March 2024 – Current

- Developed a **Java-based application** using **Java Swing**, supporting secure login for **100+ users**, ensuring **99.9% data accuracy**, and **reducing query time by 50%**
- Utilized an **SQL database** for **CRUD operations**, managing **unlimited patient records** with **query execution under 1 second**
- Enhanced a prior system with a **user-friendly interface**, **boosting user satisfaction by 35%** and **reducing data entry errors by 20%**

Simple Data Pipeline

October 2024

- Designed and implemented a **Python-based ETL pipeline** to **extract, transform, and load (ETL)** real-time weather data from the **WeatherAPI** in a **MySQL database**, utilizing modular functions for **JSON parsing** and **SQL execution** to ensure efficient **data management**
- Developed a dynamic **API integration** that retrieves data based on user-inputted city or ZIP code, enhancing **flexibility** and **user experience**

Animal ScrapBook

April 2023

- Developed an animal classification app using **Xcode** and **Swift**, integrating a **CreateML model** to classify animals from photos, while also maintaining a record of captured animals, and seamlessly incorporating **UIImagePicker** for photo capture
- Implemented notifications to encourage daily application engagement for an **unlimited number** of users, fostering user interest in discovering and learning about various animal species in a digital format within a **user-friendly interface**

TECHNICAL SKILLS

Programming Languages/Technologies: Java, Python, R, SQL, Swift, UIKit, C, C++, HTML, CSS, Jupyter Notebook

Platforms: Mac OS, Windows OS, IntelliJ Idea, Xcode, CLion, PyCharm, WebStorm, Visual Studio Code, Unix, Microsoft 365

STUDENT INVOLVEMENT

Engineering Club, Bloomington, IN

August 2023 – Present

Executive Board Member – Treasurer

- Maintained accurate financial records, reported changes at board meetings, and coordinated purchase approvals with the President, showcasing adept financial judgment for accountable resource management aligned with organizational directives