**Tanuj Dave**

[tdave6@uic.edu](mailto:tdave6@uic.edu), [tanujdave075@gmail.com](mailto:tanujdave075@gmail.com)

(708) 830-4366

[LinkedIn](https://www.linkedin.com/in/tanuj-dave-280172177/), [GitHub](https://github.com/TanujDave0/Academic)

**EDUCATION**

**University of Illinois at Chicago,** Chicago, IL

Bachelor of Science, Computer Science Dean’s List, GPA 3.83

Expected May 2023

Relevant coursework: AI, Cloud Computing, Machine Learning, Data Science, Advanced Data Structures and Algorithms, Software Design/Engineering.

**EXPERIENCE**

**Software Engineering Intern,** Chicago, IL May 2022 – August 2022

Continental AG

* Project: Asynchronization of the telematics FOTA (firmware-over-the-air) updates and propose a proof of concept to the team.
* Developed a prototype individually that parallelizes the update process and uses the proprietary ECU system architecture to optimize multi-processor components updates. Handled errors, timeouts, shutdowns and used them to further optimize the workload, update routines of the update agents and error reporting.
* Prototype saved 30% to 40% time while updating both individual and multiple components distributed across the system.
* Learn the proprietary system architecture and features like carrier communication, OTA update calls, automated testing etc.

**Research Intern (Software),** Chicago, IL January 2021 – May 2021

Rehabilitation Robotics Lab

* Developed an application using python and C++ that works at high frequency to extract the data from 3-D motion-sensing equipment and simultaneously parse and store it while displaying a 3-D real-time visualization of the subject.
* Save the data onto the computer to analyze the overall range of motion and weaker range of motion to help amputees.
* Used pyBullet and Vicon DataStream in python to render a live 3-D humanoid*,* move humanoid using motion capture data and pandas. Used UDP/TCP communication to bridge the communication between the Vicon motion capture and the application.

**Computer Science Teaching Assistant,** Chicago, IL January 2022 - present

Computer Science Department, UIC

* Subjects: Data Structures and Algorithms, Intro to Programming
* Assisting students with their lab and development projects and grasp crucial programming and logical concepts.

**SKILLS**

**Languages:** C++, Java, Scala, Python, C, F#.

**Development:** Cloud Computing, Embedded Systems/Software, Telematics, Automated testing, Machine Learning/AI, Containers, Apache Hadoop-Spark, RESTful services, Distributed Systems, AWS, RPC, networks, microservices, Pandas, sklearn, NumPy, Android development, Linux, Docker, Google Tests, UML, SQL, git, Jira, Agile development, HTML, CSS.

**MAJOR PROJECTS**

* **RESTful Interval Search service:** A RESTful AWS Lambda function that finds the injected string and the time-interval in a log file in O(log(N)) complexity. Used gRPC server deployed in AWS EC2 and a gRPC client to optimize the communication and decrease the latency.
* **Breast-Cancer Prediction:** Machine learning models developed using python, sklearn on the Breast Cancer Wisconsin dataset. Average 97% accurately predicts the malignancy of cancer cells. Group used Decision trees, Naïve Bayes, Linear and Logistic regression using the gradient descent to observe patterns and create an optimized model for the dataset.
* **Multiplayer Sessions Android Tic-Tac-Toe:** A multiplayer tic-tac-toe that supports more up to 8 players. Multithreaded GUI and backend server that maintains several player sessions, developed using Java on Android Studio and C++. Used the multi-server client model that enables user to play a multiplayer version of Tic-Tac-Toe with their friends over the internet using their Android device.

**ACTIVITIES**

**Chicago Triathlon,** Chicago, IL August 2022

Participant/Finisher

* Participated and completed the Chicago 2022 Triathlon Supersprint consisting of swimming, bicycling and marathon demonstrating endurance, determination, goal setting and resilience.