

# Dineshman Bajracharya

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## EDUCATION

**The University of Texas at Dallas** – Richardson, TX

May 2026

**Bachelor of Science in Computer Engineering**

CGPA: 3.5/4.0

Relevant coursework: Data Structures and Algorithms, Digital Systems & Logics, Electrical Network Analysis, Probability Theory & Statistics, Machine Learning/Artificial Intelligence, Mechanics

## SKILLS & CERTIFICATIONS

- **Languages:** Python, C++, Java, MATLAB, MIPS, Javascript
- **Developer Tools:** TensorFlow, Jupyter Notebook, GitHub, CircuitLab, PSpice, SolidWorks, Fusion 360
- **Certifications:** Machine Learning Foundations Certification, Cornell University

## PROJECTS

**AI-Powered Guiding Eye** | Team Project

November 2023 - May 2024

- Engineered a navigation-assistive wearable device to enhance mobility for visually impaired individuals.
- Programmed Arduino Uno for device control, ensuring seamless communication between components and reducing response time by 30%.
- Devised voice-activated functionalities using TensorFlow Lite and OpenAI Whisper, boosting user-friendly interaction and increasing user engagement by 40%.

**Dallas Formula One Racing** | Embedded System

September 2023 - Present

- Built a Data Acquisition System (DAQ) to collect and log sensor data, facilitating quicker data analyses for the mechanical engineering team and cutting data collection time by 40%.
- Fabricated racing telemetry systems using an Arduino-based platform, providing real-time data insights and enhancing team performance by 25%.

## EXPERIENCE

**Break Through Tech - AI/ML Fellow** | Cornell University, Remote

May 2024 – Present

- Improved data quality by refining complex datasets using Python, pandas, and numpy, correcting inconsistencies and missing values, which resulted in a 30% increase in model accuracy.
- Developed and trained machine learning models in Jupyter Notebook, utilizing seaborn and matplotlib for visual data analysis, boosting predictive performance and supporting strategic decision-making in three key projects.
- Enhanced project outcomes by implementing data visualization techniques to clearly depict model results and trends, improving understanding and refining algorithm parameters.

**E-Learning Recording Studio Technical Lead**

September 2022 – Present

University of Texas at Dallas, Texas

- Directed a cross-functional team of 10+ members to enhance the technical quality of 120+ editing requests each semester, while ensuring adherence to high-quality standards in collaboration with instructional designers.
- Streamlined workflows and administered technical aspects of e-learning content production, significantly improving content delivery timeliness ensuring efficient project execution and adherence to deadlines.

## ORGANIZATIONS

**Institute of Electrical and Electronics Engineers, Robotics Division**

January 2024 - Present

- Served as Lead Assistant in the Robotics Team, where I trained team members in designing and 3D printing components using CAD software, resulting in a 40% increase in team members' proficiency in CAD design.

## HONORS & AWARDS

**Leland Dillaha MSEE '97 Undergraduate Scholarship** | Jonsson School @ UT Dallas

March 2024

**APIA Toyota Scholarship** | Toyota North America

July 2023