MIHIR CHANDUKA

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EDUCATION

Rutgers University   New Brunswick, NJ
B.S. in Computer Science and Economics   *Class of 2027*
- Relevant Coursework: Introduction to Linear Algrebra, Data Structures, Physics I & II, Discrete I

EXPERIENCE

Rutgers Formula Racing   September 2023 - Present
Data Acquisition Engineer - Automotive Suspension and Aerodynamics   *New Brunswick, NJ*
- Designed and implemented data acquisition systems to monitor and evaluate the performance of the vehicle during testing and races, providing critical insights for further enhancements.
- Researched and analyzed aerodynamic and suspension principles to optimize the performance of the race car
- Machined and fabricated various suspension components using precision tools and equipment

FRC Team 2554   October 2019 - August 2023
Electrical Team Lead   *Edison, NJ*
- Designed and engineered a competitive robot for tri-state competitions, showcasing technical proficiency
- Led electrical sub-team to become Global Finalists **(20 of ~1,000 teams)** for the 2021 Season with the design of VisualEyes,an AI-powered device mounted on a hat aiding mobility for the visually impaired
- Orchestrated and ran a Python and Arduino curriculum for **3,500+** students, a **50%** increase over previous years
- Managed **30** members across the electrical, marketing, mechanical, and programming sub-teams

Troop 17B   Feburary 2017 - December 2022
Eagle Scout, Webmaster and Patrol Leader   *Metuchen, NJ*
- Guided and mentored **~40** juniors, fostering effective leadership and future preparedness
- Established the troop's online presence via a website and analyzed user traffic to increase registrations by **68%**
- Directed and helped construct an Eagle Scout Project by building a green house for a local temple's garden
- Dedicated over **140 hours** to community service initiatives, spanning local clean-ups and community aid

PROJECTS

Posterboxd | *github.com/mihirchanduka/posterboxd*
- Created generative artwork utilizing Letterboxd's API, Multithreading, and Python's Pillow library to manipulate and display images dynamically.
- Efficiently processes large datasets of film information to provide detailed user statistics such as watch time.

Optical Flow Anitcheat | *github.com/mihirchanduka/Optical-Flow-Anticheat*
- Created a proof-of-concept anticheat for detecting suspicious behavior with **87% accuracy** in Counter-Strike: Global Offensive
- Leveraged advanced data analysis techniques, machine learning, and statistical modeling to analyze player behavior, identify anomalies, and distinguish legitimate gameplay from potential cheating or rule violations.

Genesis GPA Calculator | *github.com/mihirchanduka/GenesisGradeCalculator*
- Utilized Selenium to extract data from the school's gradebook website, ensuring secure and automated data retrieval without a public API
- Designed a dynamic data parsing and storage system that seamlessly integrated data from various online sources, allowing for instantaneous real-time updates.

Home Server
- Established a secure, self-hosted ecosystem for continuous learning, featuring real-world simulations of system vulnerabilities, penetration testing, and recovery procedures to sharpen cybersecurity skills.
- Proficient in using Docker to containerize and efficiently manage diverse applications, including: **Jellyfin, Nextcloud, and iMessage Server (MacOS VM)**

SKILLS & ACHIEVEMENTS

Languages: Java, Python,C++, HTML/CSS, JavaScript, Markdown, LaTeX

Frameworks & Libraries: PyTorch, OpenCV, Selenium, NumPy, Pandas

Tools: Arduino, Git, Linux, Vim, Bash, AWS, Azure, Google Cloud

Software: Ansys HFSS, Ansys STK, Solidworks, Blender, Photoshop, Docker

Achievements: Eagle Scout (2 Eagle Palms), FIRST Innovation Global Finalist (FRC Team 2554)