

# NISHKAL HUNDIA

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## EDUCATION

**University of Maryland**  
BS Computer Science

College Park, MD  
Expected Graduation: May 2026  
GPA: 4.0

## COURSES

Taken: OOP in Java 1 & 2, Calc 1 & 2  
Spring 2024: Intro to Computer Systems, Discrete Math, Linear Algebra

## SKILLS

Languages: Java, Python, C, C++, R  
Data Science: Matplotlib, Scikit-learn, Numpy, Pandas, Keras, Transformers

## EXPERIENCE

### UMD App Dev Club

*Backend and ML Ops Tech Lead*

Sep 2023 -

- Working on developing a team management solution for Praxis Engineering.
- Heading the backend and machine learning teams.
- Using Google ML Kit along with custom models with a Firebase backend to analyze user activity and generate performance reports.
- Liaising with Praxis representatives to find the best way to implement functionality.

### BLAST AI

*AI Instructor and Mentor*

Jun 2023 - Aug 2023

- Conducted live Zoom lectures for 100+ students, covering various AI concepts, including transformers, CNNs, and hyperparameter tuning.
- Created original teaching materials for all the models and methodologies taught in class.
- Led office hours, addressing students' AI-related doubts and concerns.
- Designed and evaluated coding practice assignments to gauge students' understanding of the concepts.
- Leveraged prior student experience within the company to enhance support for current students and facilitate clear communication of complex concepts.

## PUBLICATIONS

**Genotype Imputation Using K-Nearest Neighbors and Levenshtein Distance Metric** *Python, Machine Learning, KNN*

Publication: [ieeexplore.ieee.org/document/9952611](https://ieeexplore.ieee.org/document/9952611) , Code: [github.com/DoubtfulCoder/dna-imputation-ml](https://github.com/DoubtfulCoder/dna-imputation-ml)

Co-first authored a novel machine learning algorithm published in IEEE ICTC 2022, using Levenshtein distance in a K-Nearest Neighbors approach to impute missing gene data.

## PROJECTS

### JarWiz: The Future at Your Fingertips (Winner: Spark of Genius, hack@CEWIT 2024)

Code: <https://github.com/Swastik3/Jarvis>

A software accessibility tool that uses gesture and action recognition to map virtually any action that can be performed by hardware or software to simple and intuitive hand gestures, recognized using computer vision, for seamless control.

### Drug-Drug Interaction Checker App (HopHacks 2023)

Code: <https://github.com/NishkalHundia/hophacks-2023>

Created an app that employs multiple ML models to allow users to simply take a photo of a medicine for it to be added to the database and also simultaneously check for any harmful drug interactions.

### Nuclear Physics Experiment Proposal

Paper: <http://bit.ly/3ubv9br>

Proposed an experiment comparing sub-atomic particle channeling efficiency between carbon nanotubes and silicon, placing 2nd nationally and 7th globally at the CERN Beamline for Schools competition.

## HONORS & AWARDS

### Finalist (National 2nd, Global 7th)

Finalists at CERN and DESY's Beamline for Schools competition.

CERN & DESY

Jun 2023

### Oracle Certified Associate Java Programmer (OCA)

Jun 2022

### NASA's Honourable Mention & People's Choice Award (across 2.7k students)

NASA's Mars XR 2  
Developed ideas for VR training scenarios for mars astronauts. Received 1000\$ cash prize.

Apr 2023