

Nandha Gopikannan

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EDUCATION & HONORS

Indiana University | Bloomington, IN

Expected May 2026

Bachelor of Science in Computer Science | Bachelor of Science in Mathematics | Bachelor of Science in Statistics

GPA: 3.76

Minors & Specializations: Artificial Intelligence, Music

- **Hutton Honors College:** Selected to engage on an intensive curriculum of honors-level liberal arts courses
- **Dean's Scholarship:** Granted the maximum scholarship for out-of-state students for outstanding academic achievement

Relevant Coursework: Data Structures and Algorithms Honors, Data Analysis and Mining, Principles of Machine Learning

EXPERIENCE

StudyBuzz | Bloomington, IN

August 2023 – Present

Co-Founder

- Pioneered a machine learning driven EdTech app aimed to create a streamlined platform for student-educator engagement
- Oversaw research and development by coordinating market research and analysis and conceptualizing core app functionalities
- Selected to join the Shoebox, IU's premier student startup incubator that provides invaluable resources to build a business

Department of Intelligent Systems Engineering Aerospace Systems Lab | Bloomington, IN

August 2023 – January 2024

Undergraduate Researcher

- Worked on project "Development of a Cyber Physical Unmanned Aircraft Research System" under Dr. Or Dantsker
- Converted existing MATLAB code base into Python, and created functionalities that perform basic spatial, aerodynamic, and power data analysis and optimization from UAV flight data utilizing Pandas, NumPy, scikit, Matplotlib, and FlightCoach

UT Dallas Big Data Analytics and Management Lab | Dallas, TX

June 2021 – August 2021

Research Intern

- Applied CAMEO codebook guidelines to annotate sets of political and current event statements for implied sentiments
- Utilized Python to analyze the annotated datasets, including computing Fleiss and Cohen's Kappas to measure inter-annotator agreement to provide a machine learning model with sufficient data to analyze and annotate statements independently

INVOLVEMENT AND LEADERSHIP

Indiana University Mathematics Department | Bloomington, IN

August 2023 – Present

Undergraduate Instructor

- Collaborated with course instructors by assisting students in weekly lectures, fostering an inclusive learning environment
- Provided one-on-one tutoring in the Math Learning Center, contributing to improved student performance and class retention

IUBolt Autonomous Racing Team | Bloomington, IN

September 2023 – Present

Planning Algorithm and Strategy Researcher

- Collaborated with fellow team members to develop a dual level race planner, enhancing the team's racing strategy by integrating local track insights and changes with optimal global race routes and objectives
- Developed and implemented algorithms in ROS2 for path planning and speed control using Python and relpy

IMC Prosperity Trading Talent

March 2023

- Achieved a top 3% ranking out of 8000+ teams and generated positive alpha in a trading competition created by a leading global market liquidity provider utilizing both Python algorithmic market making scripts and positional manual trading strategies

PROJECTS

NBA MVP Prediction | *Python, Jupyter Notebooks, pandas, scikit-learn, BeautifulSoup, Selenium*

- Developed a complete end-to-end application to predict the NBA League MVP based on player, team, and game data
- Scraped data from basketball-reference.com and utilized model data to create a Random Forest machine learning model

ASL EVO (aslevo.tech) | *Typescript, React, Next.js, Node.js, Tailwind CSS, MongoDB, Vercel*

- Built and deployed an interactive game with a character evolution system based on users' points to help teach ASL fundamentals
- Integrated Next.js and MongoDB for data persistence and a scalable backend to store users' points, streaks, and progression

TECHNICAL SKILLS

Languages: Java, Python, Javascript, TypeScript, C/C++, HTML/CSS, SQL, R, MATLAB

Libraries & Frameworks: React, Node.js, ROS2, NumPy, MongoDB, PyTorch, pandas, SciKitLearn, TailwindCSS, Matplotlib

Developer & Additional Tools: Git, Docker, Jupyter Notebooks, Jira, Agile, Microsoft Tools(Excel, Access), Google Suite

INTERESTS

NBA Basketball

Singaporean Cuisine

Backpacking

Dominic Fike

Formula 1