

# Nithiya Shree Uppara

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**Objective:** Pursue Masters degree to enhance knowledge in Artificial Intelligence, Cognitive Science, Theoretical Computer Science and Human Computer Interaction.

## Education

- **International Institute of Information Technology - Hyderabad** **Hyderabad**  
*Bachelor of Technology ( HONORS ) Computer Science & Engineering, CGPA: 7.18/10.0* 2013–2017
- **Narayana Junior College** **Hyderabad**  
*Intermediate, State Board, 89.9%,* 2010–2012
- **Sri Aurobindo International School** **Hyderabad**  
*Secondary Education, ICSE, 84%,* 1998–2010

## Research Experience

- **Research Assistant at Centre for Cognitive Science, IIIT-Hyderabad** **Hyderabad**  
*Discriminating color ensembles with different numbers of colors* Aug'2018–Dec'2018
  - The objective is to form a model that gives an estimate of optimal gaze patterns and time duration.
- **Research Assistant at Centre for Cognitive Science, IIIT-Hyderabad** **Hyderabad**  
*Decoding (un)known opponent's game play, a real-life badminton eye tracking study* May'2017–Aug'2017
  - The objective is to form a model that gives an estimate of optimal gaze patterns and time duration.
  - Studied the differences in the decision making process in badminton players, when they are playing against professional and amateur opponents, by using their visual information obtained from eye-tracking glasses.
- **Research Project (HONORS) guided by Prof. Kavita Vemuri, IIIT-Hyderabad** **Hyderabad**  
*Building Games for Pattern Recognition Intelligence* Aug'2015–Aug'2017
  - Conducted Standard Raven's IQ test on 4th and 5th standard students.
  - Designed and implemented an online serious game correlating some of the patterns from Standard Raven's IQ test questions to the patterns in nature, using Unity.
  - Analyzed the scores obtained in the game and relating it with the scores obtained in the Standard Raven's IQ set.
- **Research Project guided by Prof. Kavita Vemuri, IIIT-Hyderabad** **Hyderabad**  
*Algebra Game* Aug'2016–Dec'2016
  - Studied the ability of students to learn abstract mathematics through a game, in comparison with classroom teaching.
  - The study is done in an environment with three sets of students. First set is taught orally by the teacher, second set is taught through the algebra game and third set students are allowed to learn independently
- **Research Assistant at Centre for Cognitive Science, IIIT-Hyderabad** **Hyderabad**  
*Analyzing the abilities of Dementia patients* May'2015–July'2015
  - The main motive of the project is to help dementia patients remember basic information about themselves such as their phone number and address.
  - Designed a serious game to enhance the abilities of Dementia patients.

## Publications and Presentations

- Nithiya Shree Uppara, Jahnavi Nukireddy, Kavita Vemuri **A new test for pattern matching intelligence for school children and performance analysis with academic grade point.** *In the proceedings of the International Society for Intelligence Research, 2017 (Poster Presentation at McGill University, Montreal, Canada, July 14-16, 2017)*
- Nithiya Shree Uppara, Aditi Ashutosh Mavalankar, Kavita Vemuri **Eye tracking in naturalistic badminton play – comparing visual gaze pattern strategy in world-rank and amateur player.** *In the proceedings of Pervasive Eye Tracking And Mobile Eye-Based Interaction, 2018 (Paper Presentation at SWPS University Of Social Sciences And Humanities, Warsaw, Poland, June 14-17, 2018)*

## Achievements and Awards

- **Research Award** **IIIT-Hyderabad**  
*For fostering research at undergraduate level.* 2015-2017
- **Dean's Award for Academic Excellence** **IIIT-Hyderabad**  
*For being in the top 15 percentile students of the batch.* 2016-2017

## Work Experience

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- **Visa Inc Technology Center** **Bangalore**
  - *Associate Information Security Analyst* *Aug'2017–May'2018*
    - Automated data loading for all the disconnected application enrolled in Oracle Identity Manager (OIM).
    - Developed a website to manage the different OIM servers.
    - Worked as a key member in conducting the User Access Revalidation (UAR).
  - **Intern at Centre for Good Governance** **Hyderabad**
    - *Website to manage Income Tax Cases* *May'2015–June'2015*

Built a website which manages Income Tax cases using PostgreSQL for the database and MyEclipse for the rest.
  - **Teaching Assistant** **IIIT-Hyderabad**
    - Worked as a TA for Functional Analysis course under **Prof. Lakshmi Burra** *Jan'2017–May'2017*
    - Worked as a TA for Operating Systems course under **Prof. P. Krishna Reddy** *Aug'2016–Dec'2016*
    - Worked as a TA for Introduction to Theater Arts *Aug'2015–Dec'2015*

## Projects

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### Major Projects.....

- **Wikipedia Search Engine** *Spring'2016*
  - *Semester Project under Prof. Vasudev Varma*
    - Designed and developed an efficient search engine to query archived Wikipedia documents of 42GB size using secondary indexing and two-phase merge-sort.
    - Developed and tested TF/IDF-based heuristics to rank relevant Wiki pages and achieved mean response time of 500 milli seconds.
  - **Reverse Auctioning Engine** *Spring'2016*
    - *Semester Project under Prof. Vasudev Varma*
      - Implemented a reverse auctioning engine which identifies the auctioning agents that are software robots.
      - Analyzed bidding data and extracted distinguishable features that help us differentiate between a human and a robot.
      - Designed an ensemble of three classifiers i.e, Random Forest Classifier, Bagging Classifier and Logistic Regression, and trained the classifiers according to these features and tested them.
    - **Automated Tag Recommendation for Stack Overflow** *Monsoon'2015*
      - *Semester Project under Prof. Avinash Sharma*
        - Implemented an Automated Tag Recommendation System using a reference paper by Avigat K. Saha, Ripon K. Saha, Kevin A. Schneider.

### Other Projects.....

- **Instant Insanity Game:** Designed and implemented instant insanity game in Python using game theory concepts.
- **Mini SQL Engine:** Implemented a mini-SQL engine in Python which runs a subset of SQL queries using command line interface.
- **File Transfer Protocol:** Implemented a file and folder sharing protocol between two users in C which allows to upload and download files from remote server.
- **Carrom Board:** Created a 2D Carrom board game with keyboard and mouse controllers using OpenGL.
- **Artificial Intelligent Agent for playing Ultimate Tic-Tac-Toe:** Designed and implemented a utility function to decide the next move of the bot based on the current board state using alpha-beta pruning algorithm.
- **Consolidated Students Portal:** Designed and built a web portal using Django framework for updating the marks and attendance of students. It contains different access levels for different type of users.
- **Enterprise Database Design:** Designed a database for an enterprise from scratch i.e, from ER to EER and finally built a basic website with appropriate functionalities and privileges to the users using MySQL, PHP and Apache2.
- **Mini Shell:** Designed a user defined interactive shell program that creates and manages new processes in C.
- **Pacman Game:** Implemented a multi-daemon Pacman game in Python using OOPS concepts.

## Technical Skills

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- **Operating Systems:** Windows, Linux
- **Programming and Scripting Languages:** C, C++, Java, Matlab, Python, Bash, PHP
- **Database Languages:** MySQL, PostgreSQL
- **Web Development:** HTML5, CSS3, JavaScript
- **Frameworks:** Unity (Professional), Foundation, Bootstrap, Django, Web2Py, Codelgniter