



Rishav Chourasia

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B.Tech - Computer Science and Engineering
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Education

| Year | Degree / Certificate | Institute / Board | CGPA/Percentage |
|-------------|----------------------|--|-----------------|
| 2014 - 2018 | B.Tech | Indian Institute of Technology, Guwahati | 9.32 (Current) |
| 2014 | Senior secondary | CBSE board | 91.6% |
| 2012 | Secondary | ICSE board | 96.4% |

Experience

- **Research Intern at Hanyang University, South Korea.** May 2016 - July 2016
Prof. Frank Chung-Hoon Rhee, member of IEEE, Korea representative of IFSA goo.gl/yczOr6
 1. Developed a search engine for Hanyang website.
 2. Wrote a research paper on application of type 2 Fuzzy Systems to model uncertainty in pattern recognition techniques to improve performance.
- **Software Developer Intern at Amazon.** May 2017 - July 2017
Transaction Risk and Management Team, ADC BLR12
Worked on a platform to configure a fraud detection service for digital and physical orders.

Publications

- (Ongoing) **Chourasia, R.**, Vyas, S., Radhakrishnan, A., Rhee, F. C.-H., Applying interval type-2 fuzzy logic for Parzen window density estimation.
Prof. Frank Chung-Hoon Rhee, member of IEEE, Korea representative IFSA JIS
- (Accepted) **Chourasia, R.**, Saxena, V., Yadala, N., Rhee, F. C.-H., Visualisation of Two-dimensional Interval Type-2 Fuzzy Membership Functions using General Type-2 Fuzzy Membership Functions.
Prof. Frank Chung-Hoon Rhee, member of IEEE, Korea representative IFSA IFSA-SCIS 2017
- (Accepted) Saxena, V., Yadala, N., **Chourasia, R.**, Rhee, F. C.-H., Type Reduction Techniques for Two-dimensional Interval Type-2 Fuzzy Sets.
Prof. Frank Chung-Hoon Rhee, member of IEEE, Korea representative IFSA FUZZ-IEEE 2017

Projects

- **Search engine for Hanyang University** May 2016 - July 2016
Prof. Frank Chung-Hoon Rhee, member of IEEE, Korea representative of IFSA
Worked on a **funded project** for developing a **search engine** on python for searching lecture notes, documents and forms along with traditional webpage searches on hanyang.ac.kr domain.
- **Smart Line-following Autonomous Efficient Robot (S.L.A.E.R)** Mar 2016 - Current
Robotics Club IIT Guwahati goo.gl/UpsscG
 1. An autonomous line follower capable of learning a map of lines and then creating a virtual graph to navigate using shortest path, while detecting and avoiding tagged objects using image processing.
 2. This project **won the Robothon Kolkata**, was **demonstrated in Robofest, IIIT Hyderabad** and also in **Techexpo IIT Guwahati**.
- **Android application for geo-based augmented reality** Oct 2015 - Dec 2015
Microsoft Code.Fun.Do github.com/Rishav1/DeStrangify
 1. A login based application to show the users, locations of their nearby friends in an **augmented reality view**.
 2. Used online cloud storage system of **parse.com** for storing user credentials and real-time locations.
- **Dynamic walking on a biped bot** July 2016 - Current
Robotics Club IIT Guwahati goo.gl/UpsscG

A biped bot implementing dynamic walking. The bot's chassis was made by 3-D printed parts, and the joints were made using 180-degree servos. The joints were controlled via ROS running on a mounted Raspberry Pi. The data-set for ML training was generated by manually controlling the bot using joystick.

- **File sharing system for Institute intranet**

Sept 2015 - Dec 2015

Prof. Santosh Biswas

Django framework based file sharing system, with drag and drop, multiple upload, share via link and data compression features.

Technical skills

- **Programming languages** : C, C++, Python, Java, Bash, Lua.
- **IDE** : Android Studio, Xilinx ISE, Visual Studio*.
- **Statistical Languages** : Matlab, Octave.
- **Database management** : MySQL, Neo4j, MongoDB, Sqlite3.
- **Frameworks** : Django.
- **Robotics** : Arduino, ROS, gazebo.
- **Misc.** : Git, OpenCV, OpenAI gym, Torch library.
- **Operating system** : Windows, Linux(Ubuntu, Rasbian)

**Elementary proficiency*

Positions of Responsibility

- **Manager**, Robotics Club, IIT Guwahati.

Jan 2016 - April 2017

Achievements

- **Topped** Department of Chemical Engineering in first year (CPI- 9.83).t
- Was the leader of the **winning team of Robothon**, Kolkata, organized **under Robofest by IIIT Hyderabad** in top 5 cities of Kolkata, Delhi NCR, Bombay, Hyderabad and Bengaluru.
- Was the leader of the team that secured **2nd position in IoT hackathon** organized by **Bolt IoT in collaboration with Techniche**, at IIT Guwahati.
- Secured **3rd position in the image processing competition** held under **Kriti 2016, Inter Hostel Management Cup**, IIT Guwahati.
- Got **AIR-3890** in JEE(advanced)2014 and **AIR-4126** in JEE(mains) 2014 (**top 0.3% among 1.4 million candidates**)
- Was awarded **scholar badge** for being the **class topper of class 11 examination**.
- Was the **school topper, among 300 students** in class 10 **ICSE examinations**, and achieved a **district rank of 5**.

Extra curriculars

- **Image Processing workshop** : Conducted a workshop on basic image processing using OpenCV.
- **NES and SNES simulator RL bots** : Makes AI bots to play NES and SNES games on open-sourced simulators like FCEUX and ZSNES.
- **Robotics** : Keen interest in doing robotics team projects.
- **Blogging**: Active blogger.

Key courses taken

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|--|-------------------------------|
| • Database Management Systems. | • Networks and Communication. |
| • Data structures and algorithms. | • Optimisation Theory.* |
| • Probability Theory and Random Processes. | • Software Engineering. |
| • Economics and game theory. | • Theory of Computation.* |

** To be completed in April 2017*

(References available on request)