

# Fazle Rahman Ejazi

## Education

2016 – 2020 **Indian Institute of Technology Patna**, *Bachelor of Technology in Computer Science and Engineering.*

## Work experience

May 2019 – **Software Development Intern, Codenation**, Bangalore, India.

- July 2019
  - Worked with Static Analysis Team on Codegraph to implement the *Generic Program Dependence Analysis* module which computes Data Dependence Graph (DDG) and Control Dependence Graph (CDG) from source code for up to 10 languages.
  - The project mainly involved working with ASTs and CFGs and performing static code analysis.
  - Developed and implemented an algorithm for computing DDG that supports easy incorporation of new languages.
  - Implemented Fast Dominance Algorithm for computing CDG that finds the dominators in a CFG efficiently.

May 2018 – **Research Intern, The Institute of Mathematical Sciences**, Chennai, India.

- July 2018
  - Worked on Parameterized Algorithms, mainly the problems involving Feedback Arc Set on directed graphs.
  - Obtained a quadratic vertex kernel for Feedback Arc Set on Directed Split Graphs.

## Achievements

- Competitive Programming
  - Member of team Squirtle Squad which was ranked **4th in ICPC Asia Kharagpur Onsite Round 2019**
  - Member of team Squirtle Squad which was ranked **18th in ICPC Asia Regionals Online Round 2019** among 4401 teams
  - Top **1%** Percentile Globally on **Hackerrank**(Rated **2274**)
  - Top **1%** Percentile in India on **Codeforces**(Rated **1933**)

JEE Adv Secured 98.71 percentile among 0.2 million candidates.

JEE Main Ranked in top 0.5% of 1.5 million candidates.

## Projects

- Jan 2018 – **MindHunter**, (Python).
- March 2018
  - Used Random Decision Forests to predict probability that a crime belongs to certain category based on its time and location. Baseline(kNN): 45% Accuracy. Random Decision Forests: 73% Accuracy.
  - Used these predictions to develop an efficient API that suggests probable crime category at a given location and time among the total of 39 categories.
- Nov 2017 – **GIS API**, (Python, Flask).
- Dec 2017
  - Implemented Geographic Information System API using Flask and PostgreSQL which supports basic CRUD operations.
  - Supports adding a new location, fetching all nearby locations and determining which region a new location falls in.