

# Junaid H. Rahim

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## Education

### Bachelor of Technology (B. Tech)

Computer Science and Engineering, Kalinga Institute of Industrial Technology

9.73/10.0

2019-Present

## Experience and Open Source Work

### International Conference on Learning Representations

Guide: Prof. Alexander Rush, Cornell NLP, Cornell University

March 2020 - April 2020

- Worked with Prof. Rush's team to build the open source virtual conference portal for ICLR 2020. Implemented backend to manage all the submitted papers via the OpenReview API. (Python, Flask) [website] [github]
- The portal gathered 1M+ page views, 100k+ video watches and 80k+ chat messages

### Developer - Web Team

Developer Student Clubs KIIT

September 2019 - Present

- Developed **Divert** - the internal URL redirect service, handling over 1k redirects at peak load. Improved latency and throughput using hashmaps, caching and multi-threading.
- Developed the participant web portal for **devhack** - an online hackathon. Implemented a serverless system for registration, login, submissions and judging.

### Full Stack Web Developer

Desire Foundation

August 2019 - Present

- Developed a web based solution to automate and improve the data management of the sales department. (React, Firebase, TravisCI)
- Rebuilt the website and the blog site for improved performance and aesthetic. (GatsbyJS, TypeScript, MySQL)

## Technical Strengths

- Programming Languages:** Python, Javascript, C/C++, Golang
- Development:** React, PyTorch, Scikit-learn, Pandas, Flask, Echo, NodeJS, Typescript
- Databases:** MongoDB, MySQL
- Others:** Git, Linux, SQL, CI/CD, Docker, MS Azure, AWS, Firebase, L<sup>A</sup>T<sub>E</sub>X

## Publications

- Predicting Semen Motility using three-dimensional Convolutional Neural Networks** Priyansi, Biswaroop Bhattacharjee, and Junaid Rahim. In *Project Innovations in Distributed Computing and Internet Technology*, 17th International Conference On Distributed Computing And Internet Technology.

## Key Projects

### Sperm Motility Prediction using 3D ResNets

Data Hackathon 2020 - IGDTUW

Nov 2020

- Uses spatial temporal 3D Residual neural networks to predict sperm motility from videos and tabular data.

### HalideOS

An Experimental OS written entirely from scratch.

Sept 2020

- A bare bones x86 operating system written in C++. Implemented the framebuffer, shell and a mini standard library for console programs.

### Plothole - AI powered Pothole Reporting

Smart India Hackathon, 2020

December 2019

- Developed an end to end AI powered pothole reporting system. Photos of potholes clicked by citizens are classified by CNN's (VGG-16) to determine validity and severity.
- Implemented android app, web dashboard and cloud infrastructure (Kotlin, React, Flask, Redis, MS Azure)

## Achievements and Extracurriculars

- Secured **2nd Prize** in Innervate Data Hackathon, 2020 organised by IGDTUW
- Won **3rd Best Paper** Award in 10th Project Innovation Contest, 17th ICDCIT
- Started **AI Research Newsletter - KIIT** - A weekly student newsletter to share latest research papers in STEM.
- Secured **3714th** place in Google Hash Code 2020.

Last Updated on January 11, 2021. Hyperlinks at appropriate places