

# R Naresh

**4** +91-7872833729

A-209, LBS HALL OF RESIDENCE, IIT KHARAGPUR, WEST BENGAL, INDIA - 721302

#### **EDUCATION**

2013-2018 (EXPECTED)

B.Tech and M.Tech (Dual Degree) in Computer Science and Engineering

**Indian Institute of Technology**, Kharagpur

Coursework: Programming and Data Structures, Discrete Structures, Algorithms-I & II, Switching Circuits, Operating Systems, Computer Networks, Machine Learning, Image Processing, Software Engineering, Compilers, Database Management Systems, Information Retrieval, Advanced Graph Theory

# TECHNICAL SKILLS

PROGRAMMING LIBRARIES/FRAMEWORKS MARKUP/TEMPLATING DATABASES

Proficient in C, C++, competent in Javascript, Python and familiar with Java, C#

Node.js, AngularJS, Express, D3, Socket.io, Bootstrap, OpenCV, ROS

HTML, CSS, Sass, ETEX MySQL, MongoDB, PostgreSQL

SYSTEMS/PLATFORMS Git, AWS (RDS, S3, Redshift, DMS), Android

#### **EXPERIENCE**

JUN 2016 **MAY 2016** 

### **Software Development Intern**

ezDI, Ahmedabad

- Worked on integrating a Business Intelligence tool that aggregates data from all of ezDI's products for easy analytics.

- Was solely responsible for automating migration of data to a data warehouse (Amazon Redshift) using a custom server built on nodejs using AWS APIs to replicate data and changes in RDS to Redshift through S3 at regular intervals.

- Implemented proof-of-concepts to embed a BI solution into the platform and set up base models to take advantage of reusable SQL views.

APR 2016 FEB 2015

#### **Software Team Member - Kraken 3.0**

Autonomous Underwater Vehicle Research Group

- Worked on an autonomous underwater vehicle to represent India and IIT Kharagpur at competitions held in India and abroad.

- Worked in the Image Processing Team to implement algorithms in OpenCV and ROS for the bot to successfully complete multiple task including Buoy detection and path following. Was part of the group implementing a Neural Network based adaptive image segmentation to adopt to changing lighting conditions.

### **ACADEMIC PROJECTS**

**CURRENT** 

### Automated entity comparison for Wikipedia text corpora

- Implemented a novel comparative text mining task using a graph-based framework to model and measure semantic commonality and currently working on improvising results for specific domains using Wikipedia, leveraging its distinct features.

**CURRENT** 

#### Lyrics generator using neural networks

- Currently working on a lyrics generator that generates a new song in an artist's style. Created a database of song lyrics and used tensorflow to create a Long Short Term Memory (LSTM) neural network that learns artists' styles of writing, including words, rhymes, chorus, etc.

OCT 2017

# **Lowpolify** (Low-poly art generator)

- Created a web app that generates a low-poly art version of a given image that works by Delaunay Triangulation of points, using noise reduction, edge detection and randomisation algorithms for improved results and parallel processing for rendering the output faster.

**APR 2016** 

# Data extraction from biomedical literature for automating systematic reviews

- Worked on feature detection of a particular class of text (specifically, inclusion and exclusion criteria for patients) from a huge collection of biomedical literature using NLP Techniques with high precision and recall.

APR 2016

#### **Selene** (A COMMUNITY BASED MUSIC-RECOMMENDATION ENGINE)

- Built an Android app that serves as a social music-recommendation engine based on YouTube that extracts usage data from Selene users who fall under a branch length of 5 nodes in a user's Facebook friends graph, and recommends the most popular tracks among them.

APR 2016

# Retrieving salient sentences from Reddit AMAs

- Built a summariser that provides summaries from Ir/iAMA, filtered by topic, with the abilities to choose any AMA through instant search.

MAR 2016

#### Studious (Course Management System)

- Built a complete course management system that supported authentication & authorization, User Access Control for 4 different types of users, real-time messaging with notifications (using socket.io), calendar support and all major features one can expect from a CMS.

# HACKATHONS & WORKSHOPS

APR 2016

# Data Extractor for 2D plots

OpenSoft 2016

- Built a graph extractor that detects multi-variable graphs in any given PDF and tabulates them autonomously taking into consideration features like axis values, scales and legends.

MAR 2015

# **Campus Connexions**

Microsoft Code.Fun.Do 2015

- Developed an intra-college social networking app with real time feed from registered users that would serve as a platform for official and unofficial announcements related to the college.

DEC 2014

### **Object Follower Robot**

**Technology Robotix Society, IIT Kharagpur** 

- Implemented image detection algorithms using openCV for a WSAD robot which can follow a specified path using the directives sent by overhead camera whose recorded images were processed and movement instructions generated.

#### POSITIONS OF RESPONSIBILITY

CURRENT	Captain, Team LI	3S, OpenSoft 2017
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Executive Editor, Technology Literary Society, IIT Kharagpur **CURRENT** 

APR 2016 General Secretary, CodeClub, IIT Kharagpur

Core Team Member, Google Students Club, IIT Kharagpur APR 2015