

Himanshu Verma

A-210, LBS HALL OF RESIDENCE, IIT KHARAGPUR WEST BENGAL, INDIA - 721302

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EDUCATION

2013-2018 (EXPECTED) B.Tech and M.Tech (Dual Degree) in Computer Science and Engineering

Indian Institute of Technology, Kharagpur

Coursework: Intelligent Game Design*, Scalable Data Mining*, Deep Learning, Machine Learning, Artificial Intelligence, Operating Systems, Database Management Systems, Computer Networks, Information Retrieval, Speech & Natural Language Processing, Compilers, Software Engineering, Algorithms-I & II, Discrete Structures

TECHNICAL SKILLS

PROGRAMMING Proficient in C, C++, competent in Javascript, Python, Ruby and familiar with Java, C# LIBRARIES / FRAMEWORKS

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

MySQL, MongoDB, PostgreSQL **DATABASES**

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

MARKUP / TEMPLATING HTML, CSS, Sass

EXPERIENCE

IUN 2016 Software Development Intern ezDI. Ahmedabad

MAY 2016 - 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 and replication of data from RDS to Redshift through S3 at regular intervals using a custom server built on nodejs taking advantage of AWS APIs.

- 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 tasks including Buoy detection and path following. Was part of the group implementing a Neural Network based adaptive image segmentation to adapt to changing lighting conditions.

ACADEMIC PROJECTS

Automated entity comparison for Wikipedia text corpora CURRENT

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

Lyrics generator using neural networks Nov 2016

> - Worked 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.

Lowpolify (Low-Poly art Generator) **OCT 2016**

- 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.

Data extraction from biomedical literature for automating systematic reviews APR 2016

- 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 /r/iAMA, clustered by broad and finer topics, using Lexrank and Alchemy API.

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

DEC 2016 Stol (SMS TO INTERNET) Pragyan Hackathon '17

- Made an android application that provided basic internet access including Google Maps navigation, Duckduckgo quick search, Zomato reviews, etc. without a data connection. Communcation with the server was done using Twilio's SMS APIs.

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.

POSITIONS OF RESPONSIBILITY

CURRENT Captain, Team LBS, OpenSoft 2017

Executive Editor, Technology Literary Society, IIT Kharagpur **CURRENT**

General Secretary, CodeClub, IIT Kharagpur APR 2016

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