

# HRISHIKESH PAUL

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## EDUCATION

### Indiana University Bloomington

Master of Science in Computer Science / GPA: 4/4

Bloomington, IN

Aug 2019 - Expected May 2021

- Relevant Courses: Software Engineering, Operating Systems, Algorithms, Artificial Intelligence, Experience Design

### Manipal Institute of Technology

Bachelor of Technology in Computer and Communication / GPA: 8/10

Manipal, India

Aug 2015 - Jul 2019

- Relevant Courses: Software Engineering, Data Structures, OOP, Algorithms, Networks, Data Mining, HCI

## SKILLS

**Languages:** Python, JavaScript, TypeScript, C/C++, Java, NoSQL, SQL

**Web Technologies:** Vue, Angular, Node, Flask, HTML5, CSS3, REST; Familiar with React, Ionic

**Databases:** MongoDB, MySQL, Firebase; Previously used OracleSQL, Neo4j

**OS/Tools:** MacOS, Linux, Git, Agile (Scrum), Heroku, MVC

## RELEVANT EXPERIENCE

### Cyberinfrastructure for Network Science Centre (HuBMAP)

Research Assistant; Software Developer / Angular, Typescript, Node, Shell, Vega

Bloomington, IN

Jun 2020 - Present

- Built state of the art visualization tools for a program funded by the NIH, for researchers and doctors from multiple consortia to envision large biological datasets.
- Devised an algorithm to compute statistics that highlight anomalies in the data and display them on an intuitive interface.
- Pioneered a visualization that clumped a partonomy tree and a bimodal network together to help experts gain valuable insights from large biomedical datasets.
- Created detailed UX flows, wireframes and prototypes to optimize screen space and enhance user experience.

### Skylark Drones

Software Engineering Intern / Vue, Flask, MongoDB, Nginx

Bangalore, India

Jan 2019 - Jun 2019

- Developed a web app for mission planning, control and execution, improving onsite project performance by 22%.
- Resolved 50+ technical issues while installing 10+ design and functional enhancements to legacy code.
- Integrated an auto-documentation system for the backend APIs, thereby increasing user adoption by 40%.

### Hridayam Soft Solutions

Software Engineering Intern / Angular, Node, Python, OpenCV, Tesseract

Mumbai, India

May 2018 - Jun 2018

- Scripted an algorithm for extracting details from images of invoices using numerous Computer Vision techniques.
- Designed an intuitive web platform and developed multiple APIs to display the results, achieving an accuracy of 80%.

## ACADEMIC PROJECTS

### NoQ Job Portal

Project Lead; Winner out of 12 projects / Vue, Node, MongoDB, Heroku

Project, IUB

Aug 2019 - Dec 2019

- Constructed a web app for career fairs to bridge the gap between employers and students by effectively matching them.
- Engineered a smart-filtering algorithm to reduce queues at career fairs, by selecting students based on qualifications.
- Conducted unit, black/white box and integration testing, and resolved 30+ issues raised by customers.

### Part of Speech Tagger

Project Lead / Vue, Python, Flask, Numpy, Heroku

Project, IUB

Oct 2019 - Dec 2019

- Modeled an algorithm for part of speech tagging of words of a sentence by comparing various probabilistic models.
- Proposed 3 learning models using Bayes Nets, Viterbi and MCMC for word tagging and achieved an accuracy of 90%.

### Sentiment Analyzer

Finalist of the Smart India Hackathon / Angular, Node, MongoDB, Python, Keras

SIH, 2018

Mar 2018 - Apr 2018

- Implemented clustering for problem binning and demonstrated the results on a use-case tailored web app.
- Performed problem extraction and policy satisfaction of citizens, based on sentiment analysis of tweets, and achieved a sentiment accuracy of 91%.

### Requity

Winner of Microsoft's Online Hackathon / Android, Java, SQL, Azure

MIT, 2016

Sep 2016 - Oct 2016

- Developed a mobile platform for research-oriented students to collaborate with professors and students alike.
- Analyzed data collected by surveying 370 students and professors to identify product requirements and the audience.