

# Nikhil Sulegaon

📍 2995 Glenwood Dr APT 113 Boulder CO USA 80301

🌐 <https://github.com/nikhilsu>

✉️ [nisu8311@colorado.edu](mailto:nisu8311@colorado.edu)

in <https://www.linkedin.com/in/nikhil-sulegaon/>

☎️ +1-720-491-9222

## EDUCATION

- **University of Colorado Boulder** Boulder, CO  
*Master of Science in Computer Science; GPA: 3.8/4.0* *Aug 2017 – Present (Expected: May 2019)*  
*Relevant courses: Machine Learning, NLP, Probabilistic models for Machine learning, and Computer Vision.*
- **BMS College of Engineering** Bangalore, India  
*Bachelor of Engineering in Information Science and Engineering; GPA: 8.92/10.0* *Sep 2011 – May 2015*  
*Relevant courses: Data Structures using C, Design and Analysis of Algorithms, Operating Systems and Databases*

## PROGRAMMING SKILLS

- **Languages:** Python, C#, Java, Ruby, C++, C, PHP, and NodeJs.
- **Frameworks:** Keras, Theano, Tensorflow, ASP.NET, Flask, Ruby on Rails, SpringMVC, ReactJs with Redux.
- **Databases:** MS SQL Server, Postgres, MySQL, and MongoDB.
- **Others:** Android, Git, AWS, Heroku, CI, Docker, HTML/CSS, JavaScript, Shell scripting, and Powershell.

## EXPERIENCE

- **University of Colorado Boulder** Boulder, CO  
*Teaching Assistant - Software tools and methodologies* *Sep 2017 - Present*
  - Teaching 60 students, full stack development and deployment of applications using core Agile principles and TDD.
  - Training students on technologies like Shell Scripting, HTML/CSS, JS, Git, REST, MySQL, PHP, CI, and Heroku.
  - This position also involves guiding and advising students on their academic and personal projects.
- **ThoughtWorks - A staunch Agile company focused on quality of its deliverables** Bangalore, India  
*Application Developer* *Aug 2015 - Aug 2017*
  - **Project Management Tool(C#, Silverlight, ASP.NET):** A Multi-tenant SaaS Application having about 2000 tenants and 2000-5000 users per tenant in production.
    - \* Worked on building a robust backend through Test Driven Development using C#.
    - \* Refactored the legacy code base and increased the test coverage from 16% to 65%.
    - \* Optimized complex SQL queries to improve performance of key features by around 80%.
  - **Food-Supplies Management(Python, Sklearn, Keras):** A stock management tool to help the pantry of the office plan the supply of fruits, vegetables, and grocery in order to minimize wastage of food.
  - **Danglay(Ruby, Ruby on Rails):** A scalable carpooling web application using Ruby on Rails to solve the problem of commute faced by numerous employees at ThoughtWorks.
- **FreeLancing - Embedded System Prototyping** Bangalore, India  
*Designed electronic prototypes of various Assistive Technology and Home Automation devices.* *Oct 2014 - June 2015*
  - **EMG Controlled Wheelchair(Arduino, C):** A wheelchair which was controlled by an electromyograph, aimed at helping paraplegic patients move around. This system could also be controlled by a voice recognition unit.
  - **Surveillance System(Java, Android, Python, C):** Security system that enabled the owner to control the entrance gates and lockdown the house. This system also provided live surveillance of the house on a smart-phone.

## PROJECTS

- **Object 3D Pose Estimation(Python, Tensorflow, C#, Unity):** Using Neural Nets to deduce a dynamic object's 3D location(x, y, z) and rotation(roll, pitch, yaw). This information is piped to an AR head-mounted display to generate real and virtual object interactions. **Links:** *Demo, Paper(Report), GitHub.*
- **Navisys(Java, Android, Python, C++, OpenCV):** Designed an embedded system, fitted into a wearable jacket, that provided turn-by-turn navigation with dynamic obstacle detection to visually impaired users. Ultrasonic sensors - the crux of the obstacle detection unit, were later replaced by a Convolution Neural Net to increase performance by 20%. **Links:** *Report, Synopsis.*
- **Teacher's cube(Python, Bash):** Electronic mnemonic cubes, representing alphabets of a language, that pronounced the word formed when arranged one beside the other. Aimed to help dyslexic children formulate and pronounce words.

## ACHIEVEMENTS

- Won the 'Best Research Project' award at the IEEE International Advance Computing Conference 2015, held at B.M.S College of Engineering. The project also featured in the *local newspaper(link)* for its novel approach of implementation.