Rishabh Arya

IIT Bombay

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EDUCATION

Indian Institute of Technology, Bombay **Mumbai, India**
B.Tech, Civil Engineering *2018-Present*
Pursuing minor in AI and Data Science

WORK EXPERIENCE

Mebigo Labs Pvt. Ltd. **Remote**
Backend Development Intern *[Jan '21-Present]*
- Automated the process of **Invoice generation** , made functions in Django framework to interact with database
- Enabled **automatic exportation** of cluvio dashboard from email to google sheets using Python libraries

Greatfour systems Pvt. Ltd. **Hyderabad, India**
Research and Development Intern *December 2019*
- Automated the **Edge Detection** and Length Measurement in images using Python pacakages **OpenCV** & **NumPy**
- Enabled **automatic detection** of tables from PDFs using Python libraries such as **Tabula**, **Excalibur**, **Camelot**
- Designed functionalities such as **comparison for pixels, template matching** of images for the harmony, a **software platform** that aids companies in the complete process of drug development

Kasuka Consulting Pvt. Ltd. **Remote**
Web Development Intern *Summer 2020*
- Designed and developed the main website for the company from scratch using **HTML5, CSS3 and JavaScript**
- Implemented **Bootstrap** classes and **Jquery** animations to improve the **UI/UX** of the website
- Deployed the website on **Google cloud platform** ensuring a secured **HTTPS** connection

Freelancing **Remote**
Web Development *Summer 2020*
- Developed a static website for a UK based Surgeon for his private practice which displays his research & other details
- Designed the web page using **Jekyll** framework and improve the **design** to enhance the overall user experience
- Added multiple pages to the website such as publications, blog page, contact page

TECHNICAL PROJECTS

Resume Verification Portal [Portal] **IIT, Bombay**
Institute Developers' Community, IIT Bombay *[Jul '20- Sep '20]*
- **Automated** the process of resume verification that were done via mails by integrating all service in one portal
- Planned and structured the **functioning, data collection and features** of the resume verification portal to improve student experience during resume verification
- Developed the portal using **Angular**, made **APIs** in **Node.js** to interact with the database (**MySQL**)

Gaming Portal [Portal] **IIT, Bombay**
Institute Developers' Community, IIT Bombay *[Oct '20- Nov '20]*
- Designed and developed a gaming portal for the students to get together and play in a centarlized way
- Planned and structured the **functioning, data collection and features** of the gaming portal to improve student experience during gaming at the portal
- Used HTML, CSS, **JavaScript** to develop games functionality and **NodeJS** framework as a backend

Iris Recognition | Digital Image Processing [Code] **IIT, Bombay**
Course Project, Prof. Ajit Rajwade *[Nov '20- Dec '20]*
- Designed an Iris recognition algorithm using **phase components** in **2D DFTs** of given images
- Preprocessed images using iris **localization** and **normalization** techniques to remove irrelevant parts
- Evaluated **matching score** using **BLPOC** function and identified genuine and impostor attempts

Smart UI | **Techfest IIT Bombay** [Code]   **IIT, Bombay**
Hacathon Project   *[Oct '20- Nov '20]*
- Developed a web application for generating **JSON** and **HTML** files from screenshot of a wireframe
- Utilised **Streamlit** library to make an interactive web interface for uploading & downloading files
- Rendered JSON output containing attributes into static HTML template using **Yattag** library

Instibuddy [Code]   **IIT, Bombay**
Seasons Of Code , Web and Coding Club   *[Apr '20- Jun '20]*
- **Ideated** upon an institute contact phone book and personalised **FB feed** app working in a team of 5 members
- Planned and structured the **functioning, data collection and features** of the app instibuddy to improve experience
- Developed a cross-platform app using **Ionic (Angular)**, made **REST APIs** in **Django** to interact with the **backend**, **Web Scraping** for data collection & **FB page-plugin** for personalised **FB feed**

Pen Scanner [Code]   **IIT, Bombay**
Institute Technical Summer Project, IIT Bombay   *[May '19- Jul '19]*
- Ideated and designed a pen sized scanner that **scans handwritten documents** and then converts them into text documents that can be saved and shared digitally
- Applied **neural networks** to design machine learning model that identifies text from images
- Trained an alphabet recognition network using **Tesseract** & **OpenCV** to achieve an accuracy of 60%

Computer Vision and Image Processing [Report]   **IIT, Bombay**
Summer Of Science, IIT Bombay   *[May '19- Jul '19]*
- Mastered various techniques of **Computer Vision** such as **segmentation, feature detection, feature-based alignment, Object detection and denoising**
- Learned the basics of **Deep learning** to implement convolutional neural networks for object detection
- Familiarized with **Python image processing** libraries such as **TensorFlow, OpenCV** and **Pillow**

POSITIONS OF RESPONSIBILITY

Project Lead   **IIT Bombay**
Institute Developers' Community | IIT Bombay [Website]   *[Apr '20 - present]*
- Leading a team of **student developers** as a part of one of the biggest institute Developers' Community in India, responsible for the **design and development of projects** for the institute
- Mentored developers for writing maintainable production **quality code** & performing **deployments**
- **Initiated** the development of the Community's **website** to increase its outreach and impact

Web Coordinator   **IIT Bombay**
Techfest | IIT Bombay [Website]   *[Apr '19 - Dec '19]*
- Leaded a team of **10+** organizers in developing Techfest official website hitting **4.7 million** annually
- Ideated & developed Robowars betting platform for International Robowars using **Laravel** framework

Convener   **IIT Bombay**
Web and Coding Club | IIT Bombay [Website]   *[Apr '19 - Mar '20]*
- Coordinated events of one of the largest programming clubs in India and aimed at inspiring students to take up programming to instill a hobbyist **programming culture** in the institute
- Guided **100+** first year students in making their first app using MIT **scratch** and conducted **Git** workshop to introduce students to the basics of programming and **version control**

Web Secretary   **IIT Bombay**
Hostel 15 | IIT Bombay [Website]   *[Aug '18- Apr '19]*
- Revamped the hostel **website** from scratch used for various activities such as complaints & events
- Implemented **static features** like photo gallery, timetable & a news section using **HTML & CSS**
- Incorporated **JavaScript & PHP** to it make it **dynamic** and include features like **complaint form**

ACHIEVEMENTS & AWARDS

- Achieved **3rd position** in Site-developer competition conducted by **Techfest, IIT Bombay**   *[2020]*
- Awarded the **Best office bearer**(1 0f 1000) for the remarkable contribution to the hostel   *[2019]*
- Won **Special Mention** in a **programming competition** held by Web and Coding Club which included building a **game** on the **scratch programming language** in a team of 3 students   *[2018]*
- Ranked **17th** in Rajasthan in 10th class out of **0.17 million** candidates, conducted by RBSE   *[2015]*

TECHNICAL SKILLS

Programming Languages	C, C++, R, Python, JavaScript, MATLAB, HTML, CSS
Softwares/Frameworks	Git/GitHub, Django, Jekyll, Bootstrap, Angular, PHP, Google Cloud Platform, Firebase, AutoCAD, MATLAB, Octave, LaTeX

EXTRACURRICULAR ACTIVITIES

- Designed and fabricated a **Remote Controlled Plane** in a competition organized by Aeromodelling Club, IIT Bombay and learned about its flight controls and stability *[2019]*
- Successfully completed **80 hours** of community service as a volunteer of **NSS** , IIT Bombay. *[2019]*
- Designed a **Bluetooth** controlled bot that can be maneuvered through an android **app** *[2018]*
- Created videos in vernacular language for Youtube channel **Open Learning Initiative**(OLI-NSS, IIT Bombay) which has 100k+ subscribers and helps the underprivileged students in remote areas *[2018]*

COURSES UNDERTAKEN

Mathematics	Calculus, Linear algebra, Ordinary differential equation, Numerical Methods
Computer Science	Computer Programming and Utilization, Digital Image Processing, Data structures and algorithms, Advance Satellite Image Processing
Others	ML for Remote Sensing-I, Electrical and Electronics Circuits, Economics