SOHAM BISWAS

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EDUCATION

- Bachelor's in **Computer Science and Engineering**| *Institute of Engineering and Management, Kolkata*| CGPA: 9.33| **2018 - 2022.**

TECHNICAL SKILLS

- **Programming Languages:** Python, C/C++, Java, JavaScript, Go, HTML, Markdown
- **Frameworks:** Qt, CUDA, VTK, PyBullet, PyTest, Flask, Django, Node.Js, React.Js.
- **ML Frameworks:** Tensorflow, SciPy, Keras, PyTorch, Numpy, Pandas, Matplotlib, Spark.
- **Hardware:** Arduino, nodeMCU, Raspberry Pi, Ardupilot, Pixhawk.
- **Database:** MySQL, PostgreSQL, MongoDB.
- **Tools:** Git, GitHub, Travis-CI, Gitlab-CI, JIRA, Docker.
- **Platforms:** Linux(Debian and Arch based), Windows and MacOS.

EXPERIENCE

Technical Studentship - CERN (Conseil Européen pour la Recherche Nucléaire)   **Geneva, Switzerland**
Computing Engineer (BE-CSS-FST) (Full-time)   *Mar 2021 to April 2022*

- I worked as a **Computing Engineer** under the **Controls Software and Services** group of the **BEAMS** department at CERN.
- My major contributions were on a project called *Navigator* which helped modernize the way how operators and physicists edit, update, delete and query critical data from major particle accelerators like **LHC**, **PS**, **SPS** etc. The said project was contained within an Advanced GUI with advanced visualisation, data handling and editing capabilities along with other data utilities including graphs and tree views. This project helped improve the efficiency of around 4000 physicists and operators at CERN.
- Technologies that I worked on: Python, PyQt, pyqtgraph, pytest-qt, Numpy.
- More about BEAMS - Controls Software and Services group of CERN can be found here.

Google Summer of Code 2020 - Python Software Foundation
Student Developer (Full-time)   *Mar 2020 to Sept 2020*

- **Sub-org:** FURY.
- I worked on an open source project called FURY where I was responsible for building new sci-fi-like 2D and 3D graphical user interfaces inspired by the "Guardians of the Galaxy" movie and provided physics engine integration with pyBullet. For more information, visit: Python Software Foundation blogs.
- Technologies that I worked on: Python, PyBullet, Numpy, VTK.
- Project Link.
- Final Work Report

Indian Institute of Technology, Ropar
Research Intern (Full-time)   *June 2019 to August 2019*

- **Project:** *Personalized Summary Tool*. The Objective of the Project was to generate Personalised Summaries of crowd-sourced articles to users. The above solution is accomplished through Eye Gaze Tracking, Screen recording, Text Extraction, and ultimately applying Abstractive Summarization via Deep Learning to generate unique summaries. I was responsible for the Graphical User Interface, Eye Gaze Tracking, and the complete flow and integrity of the application.
- Technologies that I worked on: Python, Tensorflow, Numpy, PyQt.
- Certificate link.

Innovation Entrepreneurship and Development Cell (IEDC)
Researcher (Part-time)   *December 2018 to Mar 2021*

- **Project:** *Malicious URL Detector*. -> System layer proxy that provides protection against malicious URLs with the help of Machine Learning and custom filters based on Cyber-Security concepts.
- Technologies used: Python, sockets, scikit-learn.

Open Source
Contributor, Maintainer and Mentor (Part-time)

- **Organisations:** Fury, AnitaBorg, CodersRank, thecodefoundation, linux-kernel, Sanscript India, Appwrite.
- **GSoC 2021 Mentor** for Python Software Foundation (FURY).

PUBLICATIONS

FURY: Advanced scientific visualization

- **Publication:** The Journal of Open Source Software
- **DOI:** 10.21105/joss.03384
- Publication Link

MISCELLANEOUS

- *For my personal projects, kindly visit my github profile: https://github.com/Nibba2018*
- *Language skills:* **English(Fluent)**, Hindi(Fluent), Bengali(Native), French(Basic)