Santam Roy Choudhury

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About Me

I am highly passionate about Software Development and wish to put forward my creative ideas to make a difference in the field of Computer Science.

Education

National Institute of Technology, Durgapur, India (2019-2023)

Major: Biotechnology

Experience

IRIS-HEP Fellow - (June,2021- August,2021) - Link

Worked as a **Software Testing and Analysis Intern** under the mentorship of Jim Pivarski and Ianna Osborne.

Automated the testing framework of Awkward Array, a library used by particle physicists at **CERN**, with **property based testing** using hypothesis library and wrote testing documentation.

Wrote **test cases for 80%** of the library functions.

The library consists of C++ and CUDA Kernels. The **CUDA** Kernel development was based on the **Test Driven Development** Approach therefore **Unit Tests** were required to be generated for the C++ Kernel.

At the end of my internship, I prepared and presented my work in the form of a **presentation** to a group of technical people from CERN who use the software.

Digital Product School,Munich, Germany (September,2021-November,2021)

I worked in a team of 5 people to develop a **Biomedical AI Recommendation Assistant** for people suffering from **Type 1 Diabetes**.

The Application predicts a schedule for the patient which he must take into consideration while doing any activities in order to maintain a proper blood sugar level and not run the risk of hypoglycemia or hyperglycemia.

I worked as a **Software Engineer** of the Team, developing the Application and partly helping in making the Prediction model and data collection. The Application was built in Javascript and python backend for prediction model using FastAPI and Nodejs for User Profile Backend.

I worked on developing the mobile application and integrating it with a Continuous Glucose Monitor (CGM) Device to get continuous glucose reading from the patient's body.

In the month of November we presented our product to many Biomedical Researchers and Physicians at a conference, Health Innovation Hub In Berlin, Germany.

Skills

Programming Languages: Javascript , Python, C++

Technologies Used: React, MongoDB, Nodejs, Express, Firebase,Material UI, GraphQL, Docker, Django

Achievement: Got my talk proposal selected for a **python conference at CERN** (PyHep 2021) and gave a 10 minutes lightning talk on my project- Automating Awkward Array Testing. Link- https://youtu.be/dcuZqdCwpYM