

Geo Jolly Cheeramvelil

PROFILE

An enthusiastic student with expertise in generative AI, reinforcement learning, and web development. Skilled in Python, PyTorch, and Javascript, among others, with a passion for problem-solving and designing innovative solutions.


EDUCATION

- 2020-present **Amrita Vishwa Vidyapeetham, Amritapuri**
Bachelor of Technology in Computer Science and Engineering. CGPA: 9.26/10
- 2018-2020 **Marygiri Senior Secondary School**
Higher Secondary Education (CBSE). Percentage: 90.8%
- 2018 **Little Flower School**
Higher Education (Kerala Board). Grades: 10 A+/10 A+

EXPERIENCE

- July 2022 - Present **University of California, Santa Cruz, Research Intern**
- As a research assistant at the Tech4Good lab under Professor David Lee, I was responsible for the development of an AI approach to support apprenticeship learning in the economy.
 - As the team leader of 7 members, I effectively managed the project and ensured that tasks were completed on time.
 - I also set up and managed the Pacific Research Platform Kubernetes cluster that was granted for the project, ensuring the smooth operation of our research.
 - Currently, I am working on setting up the complex multi-agent environment, a crucial step in advancing our research.
- June 2022 - September 2022 **ACM-ASC Summer Internship, Research Intern**
- As a research assistant under Professor Vinitha J. Panicker, I was responsible for evaluating the performance of data augmentation via synthetic images for improved classification of cervicogram images using deep learning.
 - I developed a Generative Adversarial Network (GAN) to generate a synthetic dataset, which was a critical component of our research.
 - Through my efforts, I was able to demonstrate that the model outperformed the dataset generated by the GAN. This was a significant accomplishment and helped to advance our research in this area.
- October 2021 - June 2022 **The Oppia Foundation, Collaborator**
- I worked on Oppia, a free, online learning platform aimed at making quality education accessible for all.
 - As a member of the development team, I was responsible for solving issues and implementing features related to the backend of the website.
 - I was also a member of the data handling team and contributed to ensuring that the platform's data was effectively managed and organized.
- December 2020 - Present **amFOSS, Member and Mentor**
- As a member of amFOSS, the Free and Open Source Software club of my college, I have been an active participant in the club's initiatives and events.
 - In my role as a mentor, I have helped to expose my juniors to new technologies and the open source community.
 - I have taken an active part in all events hosted by amFOSS and have also contributed to the successful organization of these events.

ACTIVITIES

- July - August 2022 **CVIT Summer School**
CVIT Summer School is a research training event with a global scope aiming at equipping participants with the relevant advances in the critical and fast-developing area of artificial intelligence
- September - October 2021 **30 Days of Google Cloud** 
- 30 Days of Google Cloud program provided an opportunity to get hands-on practice on Google Cloud Platform - the tool that powers apps like Google Search, Gmail and YouTube. This program introduced me to Computing, Application Development, Big Data & Machine Learning using Google Cloud's training platform called Qwiklabs.

OPEN SOURCE CONTRIBUTIONS

The Oppia Foundation, PyTorch Lightning, DevoLearn, Zulip, GANetic

PROFESSIONAL CERTIFICATES

May 2022 **Data Science with python**, *Simplilearn*

The Data Science with Python program provides learners with a complete understanding of data analytics tools and techniques. **Certificate** [↗](#)

January 2023 **Neural Networks and Deep Learning**, *Coursera*

Neural Networks and Deep Learning provide learners with a complete understanding of the foundational concept of neural networks and deep learning. **Certificate** [↗](#)

PROJECTS

GANetic- 2023 **Tech stack: Python, PyTorch**

- Developed a PyTorch-based framework for training and evaluating Generative Adversarial Networks (GANs), with a focus on lightweight design and high customization.
 - Studied and wrote efficient implementations of several popular GANs, including DCGAN, SRGAN, and pix2pix.
- . Link to project: <https://github.com/kingjuno/GANetic>

Galaxy Morphology Prediction - 2021 **Tech stack: Python, PyTorch, onnx, Jupyter Notebook**

Galaxy classifier is a tool capable of classifying the main features of a galaxy. For ease of use, the model was converted into onnx and then deployed as a web application. Link to project:

<https://github.com/kingjuno/Galaxy-Morphology-prediction>

Pneumonia Detection using chest X-rays - 2021 **Tech stack: Python, PyTorch, onnx, Jupyter Notebook**

- Worked on a project to classify Pneumonia patients using chest x-rays.
 - Converted the model into ONNX format for ease of use.
 - Deployed the model as a web application, offering a user-friendly interface for both patients and healthcare professionals.
 - Provided a link to the project for convenient access.
- . Link to project: <https://github.com/kingjuno/Pneumonia-Detection>

VOLUNTEERING

- **Student Social Responsibility (SSR) 2022:** Member of a team responsible for holding seminars for high school students on choosing a career in Computer Science, providing valuable insights and guidance to those interested in pursuing the field.
- **Organizer | Hacktoberfest 2022:** Co-ordinated event logistics and provided guidance to hackathon participants.
- **Organizer | Introduction to Open Source 2022:** Organized a workshop on open source technologies, including web development, Android development, Python, Linux, Git, and more. Coordinated logistics, and created curriculums to ensure the smooth execution of the workshop.

LANGUAGES

English Full Professional Proficiency

Malayalam Native Tongue, Full Professional Proficiency

TECHNICAL SKILLS

OS Linux, Windows

Languages Python, C++, JavaScript

Tools PyTorch, RLLib, OpenCV, Git, Kubernetes, Django, Jekyll, \LaTeX

INTERESTS

Technical Reinforcement Learning, Generative Artificial Intelligence, Web Development

Hobbies Travelling , Gaming, Playing Piano

PERSONAL DETAILS

DOB 30 June, 2002

Residence Kannur, Kerala, India