# Ayan Adhya

# Indian Institute of Technology, Goa

Third Year Undergraduate, Mechanical Engineering

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#### **Education**

BTech, Mechanical Engineering: Indian Institute of Technology GoaCGPA: 7.5/102018 - PRESENTClass 12, CBSE: Navrachana School, SamaAggregate: 84 %2018

#### **Experience**

### Foodwagon Private Ltd.

[<u>May-June 2020</u>]

Summer Software Development Intern

- Worked with the development team to implement data strategies, build data flows and developed data models in PostgreSQL.
- Developed an entire end-to-end user authentication system in Django.
- Created optimized RESTful APIs for exposing the backend functionality to the UI/UX.
- Added the Filter functionality which includes taking filter inputs from the user and making calls to the API routes.

## **Verzeo EduTech** Summer Machine Learning Training

[<u>May-July 2020</u>]

- Analysed a student performance dataset to find the causes of lower marks using NumPy, Pandas and Matplotlib.
- Trained a model to predict the cost of used cars using XGBoost regressor and achieved an accuracy of 95%.

# Coding Club, ArchiTechs

Programming Head

[May 2019 - May 2020]

- Led a team of 15+ students and went on to make 4+ websites for my college.
- Contributed to the design and used Adobe Xd for the same.
- Managed a group of 5 students and successfully developed a website for IIT Goa's First Cultural Fest.

## **Projects**

# Chrome Extension For Text Summarization [Extension] [GitHub]

[June-August 2020]

- Developed a chrome extension that lets users summarize their long texts by extractive summarization.
- Users can also provide a URL and using **web scraping** (Beautiful Soup) text is fetched.
- Summarization is done using **Natural Language Processing** (spaCy model) in Python.
- Used Vanilla JavaScript, HTML and CSS in the frontend and Flask in the backend.

# All In One | Every College Student's Website [GitHub]

[<u>May-July 2020</u>]

- Developed a Full-Stack web application using **ReactJS**, **NodeJS** and **MongoDB** to help students share their information about their internship, placement, projects, ask questions, provide other valuable experiences and connect with their juniors.
- The website has 5 sections namely 'Questions Page', 'Profile Page', 'Projects Page', 'Interview Experiences Page' and 'To-do List Page'.
- Created robust and secure **RESTful APIs** and integrated Google and GitHub's strategies for third party O-auth authentication using PassportJS's authentication middleware.

## Social Media Application [GitHub]

[<u>May-June 2020]</u>

- Developed a Full Stack secure social media app using GraphQL which allows users to post and comment on others' post.
- Built GraphQL APIs using Apollo Server along with NodeJS in the backend. Used Apollo Client in ReactJs to make queries and mutations in the frontend.
- Safeguarded the web-pages against database attacks like SQL Injection and Cross-site scripting (XSS).

# Newton Raphson and Secant Method Implementation [Website] [GitHub]

[February-April 2020]

- Implemented the iterative Newton Raphson and Secant methods to solve the Colebrook's implicit equation to analyse the behaviour of liquid during a pressure or flow rate drop in a circular pipe.
- Used Object Orientated Programming (OOP) principles in Python and plotted a Moody Diagram using Matplotlib and ChartJS in Django.
- Got an accuracy of 95% when compared to the experimental values.

# PDF Filter [GitHub]

[January-February 2020]

• Developed an application using Django where users can search and filter their uploaded documents based on any word or sentence present in any of the documents.

#### **Skills**

**Programming Language:** C, C++, Python, JavaScript, Java

Technologies: ReactJS, React-native, NodeJS, ExpressJS, GraphQL, Django, Flask, HTML, CSS, SQL (PostgreSQL, MySQL), NoSQL (MongoDB)

Machine Learning: NumPy, Pandas, Scikit-learn, OpenCV, TensorFlow

Other: Competitive Programming, Docker, Git, LaTeX

# **Positions of Responsibilities**

- Programming Head of IIT Goa's Coding Club
- Represented IIT Goa at Inter IIT Sports Meet (IIT Kharagpur, 2019) and BITS-Spree (Football)

#### **Achievements**

- Secured Rank 1 in Codigo (Intra-College Coding event) among 35+ participants
- Acquired Gold Medal in NGSE mains (National Genius Search Examination) 2018 with 90+ percentile.
- Cleared Stage 1 of Smart India Hackathon (SIH) 2019