

Amrit Gaurav Rath

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EDUCATION

Indian Institute of Technology Bhubaneswar

Dual Degree Specialization in Electrical Engineering, CGPA: 7.82

MP & EV English Medium School

Class XII, Score: 92%

Saint Anne's School

Class X, Score: 93.67%

Bhubaneswar, Odisha

Aug. 2018 – May. 2023(Expected)

Vishakapatnam, AP

Aug. 2016 – May. 2018

Titilagarh, Odisha

May. 2016

WORK EXPERIENCE

Research Intern

Supervisor: Dr. Dipankar De

May 2021 – July 2021

IIT Bhubaneswar

- Developed a Dual Active Bridge based interface for Electric Vehicle Battery Applications.
- Designed the voltage and current controllers for the battery for the generation of phase shifts.
- Created the controllers for the AC grid to maintain the required DC-Bus voltage.
- Successfully achieved bidirectional power flow between a 48Ah battery and 3-phase 230V AC Grid.

Engineer Intern

Supervisor: Rajesh Kumar Adla

April 2020 – June 2020

Null Innovations, Hyderabad

- Developed two Websites for the company using WordPress for Frontend and PHP & MySQL for Backend.
- Designed an Artificial Bot using custom chatbot from Tidio which would ping and reply to your messages.
- Created a payment portal using RazorPay for direct online payments along with a contact form.
- Implemented the Yoast SEO to improve the ranking of the Websites along with Google Analytics.

PROJECTS

Triple Active Bridge Based Interface for EVs(BTP) | MATLAB/Simulink

July 2021 – April 2022

- * Developed a high frequency three-port transformer for Electric Vehicle power management.
- * Designed the decoupling code for smooth power flow between ultra-capacitor, motor & battery.
- * Developed the inner phase shifts to decrease the harmonics and prevent the back-flow power.
- * Created the modulating signals with required phase shifts for switching of the H-bridges.
- * Successfully achieved the required target of generating various charging and discharging profiles for an EV.

Web Development | HTML, CSS, PHP, JS, MySQL, Bootstrap

Aug 2019 – May 2021

- * Developed the Main Registration Website for Annual Socio-Cultural Fest 2021.
- * Deployed the websites on the online server using CPanel.
- * Designed and Managed the Database for Registrations using MySQL and PHP.
- * Other Major accomplishments includes Websites for Online Poetry Event, Annual Fashion Show Event and Registration website for Campus Ambassador Program.

Image to Text Convertor App | Python, Flutter

Jan 2021

- * Trained a deep learning model to recognize hand-written characters, letters and numbers using OCR.
- * Created a Flutter App that will click pictures of text pages and convert it into text format using the model.
- * Used transfer learning methods on the pretrained ResNet50 model of Keras and used SGD as optimizer.
- * The model attained a test accuracy of nearly 92 percent.

Titanic- Machine Learning from Disaster | Python, Scikit-Learn, Seaborn

Oct. 2020

- * Used Seaborn to plot graphs to get a visual understanding of how the factors affected the survival rate.
- * Analyzed and Predicted the likelihood of Survival of Passenger on Titanic based on various factors.
- * Implemented various Machine Learning Models such as Random Forest Classifier and Support Vector Machine.

ACHIEVEMENTS

- * Reached and Secured Global Rank **1680** in **Round-2** of **Facebook Hackercup 2021**.
- * Google **Kick Start 2022** Global Ranks(ID: amrit2104): Round-A: 2505, Round-B: 1313, Round-C: 2628.
- * Best Google **Kick Start 2021** Global Ranks(ID: amrit2104): Round-E: 2053, Round-F: 5188, Round-H: 1328.
- * Secured Global Rank **1496** in **Round-1** of **Google HashCode 2022**.
- * **4-Star Coder** at Codechef(ID: amrit2104) with **Max Rating: 1883**.
- * Secured **All India Rank 4469** in JEE Advanced 2018.
- * Secured **All India Rank 1854** in JEE Main 2018.
- * Ranked among **Top-20 teams** in the institute for Flipkart-Grid Engineering Campus Challenge 2020.
- * Bagged **2nd Position** in Short Film Making held during Cultural Championship in the Institute(2019).

TECHNICAL SKILLS

Programming Languages: C/C++, MATLAB/Simulink, Python
Web Development: JavaScript, Bootstrap, HTML/CSS, PHP, MySQL, WordPress
CS Fundamentals: DSA, DBMS
Python Packages: Numpy, Pandas, Matplotlib, Scipy, Seaborn, Scikit-Learn
Cloud Skills: G-Cloud
Developer Tools: VS Code, Android Studio, Flutter, Sublime Text, MATLAB
Adobe Designing Tools: After Effects, Premiere Pro, Illustrator

EXTRA CURRICULAR

Student Internship Coordinator	Aug 2020 – July 2021
<i>Career Development Cell</i>	<i>IITBBS</i>
Governor	Aug 2020 – July 2021
<i>Cinewave</i>	<i>Cinematic Society</i>
Branch Representative and Member of Hostel Council	March 2019 – July 2021
<i>Electrical Engineering</i>	<i>Mahanadi Hall of Residence</i>
Web Development Core Head	Oct 2018 – July 2021
<i>Alma Fiesta</i>	<i>Socio-Cultural Fest</i>
Member	Oct 2018 – Present
<i>Souls for Solace</i>	<i>Social Welfare Society</i>