Aman Kumar Dewangan

Electrical 3rd year Undergrad NIT Raipur
IoT Developer || PHP Backend || Robotics Enthusiast || Cloud Engineering

Raipur, Chhattisgarh
amandewatnitrr@gmail.com
(+91)83056-24838

Educational Background

- Bachelor of Technology in Electrical Engineering, National Institute of Technology Raipur (2018-2022) – 8.38 CPI (6th Sem)
- Diploma in Computer Applications, CV Raman University (2019-2020) – 83.85%
- Higher Education 12th CBSE Board, Krishna Public School (89.6%)
- 10th CBSE Boards (9.2 CGPA)

Technical Skills

Programming Languages - C++ || Arduino || MySQL || Python (Raspberry Pi, Machine Learning) || C || BootStrap || PHP || Wolfram (Mathematica) || Solidity || MATLAB

Technical Knowledge - Micro Electronic Mechanical Sensor || Arduino || IoT || ESP8266 Micro-controllers || Raspberry Pi || Circuit Designing || DBMS || MongoDB || PCB Designing || Processing (Subset of Java Programming for Game Development and Electronics Visualization) || Frontend – HTML/CSS/JS || Backend – PHP

Tools - Git || GitHub || Firebase || SmartThings || Udibots || Remix || vscode || Heroku || Arduino IoT || ThingSpeak

Skill Specializations

- An Introduction to Programming the IoT - Specialization (Coursera) - University of California Irvine
- Front-end Web Development - Specialization (Coursera) - University of Michigan
- 30 Days of Google – Google Qwiklabs - Cloud Engineering
- Data Science Math Skills - **Coursera - Duke University**

Projects

- **LogiTraffic (July 2020 - August 2020):**
  - **LogiTraffic is an IoT based Deep Learning Powered Traffic Management and Theft Detection Solution.**
  - It's an online website platform using which user can keep check on certain real-time parameters associated with the vehicle which includes fuel-level, GPS location, Brake System Temperature, Speed, Traffic Forecasting using Vehicle Detection and obtaining vehicle count through different road nodes and predicting Traffic Congestion/Jams.
  - In case the user suspects his/her car has been stolen by logging in using the credentials one can lock the vehicles and see driver's real time video stream and a picture of the driver is downloaded on the system so that it can be used for further investigation and police cases.
  - (YouTube Video Presentation by Team Aztecs: https://youtu.be/rP2OGjZJ5NY) – Presented in E-Ujjwala Hackathon 2020 by Birsa Institute of Technology, Jharkhand (Team Aztecs - Finalists)
  - (GitHub Repo: https://github.com/amandewatnitrr/Aztecs-LogiTraffic)

- **MedIoT/Sanjeevani (May 2020 – July 2020):**
  - **Sanjeevani - An Android-IoT based Real-Time Health Monitoring and Medical Consultation System**
  - During my Internship at National Institute of Technology Andhra Pradesh, idea is of a Web platform that allows remote monitoring of patients through a hardware setup that uses a set of sensors to collect patient's data and produces a pdf report out of it and emails it to the doctor. The login mechanism is quite unique, first we have a patient login, within this each time the person who performs the test or monitoring needs to login with his/her unique ID to have a proper knowledge about when and who performed the test. In addition to this we have a textual interface in parallel to allow both tester (to write down and send some extra information in addition to report) and doctor as well who can write down prescription on the other end.
  - Developed at **Apscript Hackathon organized by IEEE APSIT**.
  - (Documentation: https://bit.ly/3jMmoeD)
  - (GitHub Repo: https://github.com/amandewatnitrr/A-10-NEXA and https://github.com/amandewatnitrr/evolution-hacknitr)
  - (Certificate of Appreciation: https://bit.ly/3jLGZjf)

- **Water Quality Index IoT and AI Solution (Feb 2020-March 2020):**
  The Project aims at tracking down Water Quality Index flowing through the stream by measuring pH, NO_2 Concentration, Temperature, Turbidity, Dissolved Oxygen, Total Dissolved Solid and calculating Water Quality Index and transmitting data over cloud for remote Data access and predicting further change in Water Quality Index using ARIMA Model. (Arduino | IoT | ML | Web Dev)
  - (GitHub Repo: https://github.com/amandewatnitrr/Robothon_1.0_NITRR)

- **Fuel Tank Level Detector (Feb 2020 - August 2020):**
  - The Project aims at keeping track of Fuel in the vehicle tank and send the data to an Android App using NodeMCU ESP8266(12-E) Micro-controller module using an Ultrasonic Sensor that measures fuel level in tank.
  - In case the fuel drops a certain level, it notifies user and directs to nearest Fuel Station using Google Maps API. (Arduino | IoT |App Dev) – **Unofficial Member of Team X from NIT Raipur SIH 2020 Finalists**
  - (GitHub Repo: https://github.com/amandewatnitrr/Fuel-Tank-Level-Detector-IoT-Android-Solution-Smart-India-Hackathon2020)

- **Game Development (August 2020 -August 2020):** During the month of August, I joined **Girlscript Ireland as Trainee for Game Development Program** where we taught about Game Development using Processing and p5.js JavaScript Library. I built 3 games namely the
  - Flappy Bird
  - Stack
  - Snake Game.

Position of Responsibility

- Summer Research Intern at National Institute of Technology Andhra Pradesh (May 2020-July 2020)
- Embedded IoT Intern at SVA Robotics (September 2020 – October 2020)
  - (Letter of Recommendation: https://bit.ly/3dbOTkO)
- Chairman of Documentation Committee of Technical and Professional Activity Committee IEEE Bombay Section (August 2020 – May 2021)
- **Core Member of Technical and Professional Activity Committee IEEE Bombay Section (July 2021 – Present)**
- **Technical Coordinator at Innovation Cell, NIT Raipur (Jan 2020-November 2020)**
- **Executive at IEEE Student Branch, NIT Raipur, and part of ICPC²T Team (April 2019-2020)**
- **Technical Content Writer (Summer Intern) at TechTable (April 2020-May 2020)**

Achievements

- ✓ **Runner Up - 2nd Position at Apscript Hackathon organized by IEEE APSIT**
- ✓ **Runner Up - 2nd Position at Robothon 1.0 organized by Robotix Club NIT Raipur**
- ✓ **5th position at TechExpo organized by IEEE Student Branch NIT Raipur as a part of ICPC²T**
- ✓ **Article on "Technology Influencing Disaster Management" in Shilpi, NIT Raipur Magazine**
- ✓ **IJRET - Research Paper on "Application of IoT and Machine Learning in Agriculture"**
- ✓ **E-Ujjwala Hackathon Finalists 2020 organized by Birsa Institute of Technology Jharkhand (Top-10 in Finals among teams shortlisted throughout country)**
- ✓ **Hactoberfest 2020 Open-Source Contribution to Girlscript Ireland**
- ✓ **Selected for Wolfram Summer School Student Program 2021 (July 2021 – Aug 2021)**

Link

- GitHub: https://github.com/amandewatnitrr
- LinkedIn: https://www.linkedin.com/in/aman-kumar-dewangan-akd13o1/
- Medium: https://medium.com/@amandewatnitrr
- Website: https://young-sierra-48561.herokuapp.com/index.php