

ARON ABRAHAM

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Education

- **Indian Institute of Information Technology** 2022 – 2025
Bachelor of Technology in Electronic and Communication Engineering
- **Placid Vidhya Vihar** 2019 – May 2021
Intermediate (10+2) in Science
- **BCRS** 2008 – 2018
High School

CGPA

- **Indian Institute of Information Technology** 2022 – 2025
CGPA: 7.74

Relevant Coursework

- | | | | |
|-----------------------------|--------------------|--------------------------|-------------------|
| • Digital Signal Processing | • Systems | • Electromagnetic Theory | • Data Structures |
| • Microelectronics | • Embedded Systems | • Microwave Engineering | |
| • Communication | • Control Systems | | |
| | • VLSI Design | | |

Projects

- **IoT Based Plant Leaf Disease Detection (Click here)**
 - * Developed an IoT-based system for plant leaf disease detection using machine learning techniques.
 - * Implemented a machine learning model to classify plant leaf images and detect diseases.
 - * Utilized IoT devices to collect data from plants and send it to the machine learning model for analysis.
 - * Worked on the integration of IoT devices with the machine learning model for real-time disease detection.
- **Fuzzy Logic Controller for Warm Water Plant (Click here)**
 - * Developed a fuzzy logic controller to regulate the temperature of a warm water plant.
 - * Implemented fuzzy logic rules and membership functions to model the control system.
 - * Evaluated the performance of the fuzzy logic controller in maintaining optimal water temperature.
- **Raspberry Pi IoT Project - Environmental Monitoring (Click here)**
 - * Designed and implemented an IoT project utilizing a Raspberry Pi 3, DHT11 temperature and humidity sensor, and an MQ135 gas sensor for environmental monitoring.
 - * Developed Python scripts to read data from the sensors, and send it to a Thingspeak channel for real-time monitoring.
 - * Demonstrated the integration of hardware components and cloud services for remote environmental monitoring and analysis.

Technical Skills

Languages: C++, MATLAB, KiCad, Python, ARMv7, Verilog, VHDL

Leadership / Extracurricular

- **ELIX (Electronics Group)** Fall 2022 – Present
Member IIIT Kottayam
 - * Active member of ELIX, the electronics group in college, participating in group projects and activities.
 - * Collaborated with fellow members on electronics-related projects and initiatives.
 - * Contributed to the learning and growth of the group by sharing knowledge and experiences.

Certifications and achievements

- **Hardware Description Languages for FPGA Design** **University of Colorado Boulder**
 - * Completed an online course on hardware description languages (HDLs) for FPGA design.
 - * Learned to explain the role of HDLs in design entry and verification for FPGAs and ASICs.
 - * Utilized HDL software tools for FPGA development.
 - * Acquired skills in designing FPGA logic, writing code in VHDL and Verilog, designing test benches, and simulating FPGA designs.
- **NPTEL Online Certification** **Awarded by the MoE, Govt. of India**

Embedded System Design with ARM

 - * Proctored Exam: 57
 - * Consolidated score in Online Assignments: 20.58/25
 - * Total number of candidates certified in this course: 341
 - * Certificate Link
- **GATE 2025** **Organized by IIT Roorkee**

All India Rank (ECE): 2901

 - * Secured an All India Rank of 2901 in the Graduate Aptitude Test in Engineering (GATE) 2025 in the Electronics and Communication Engineering (ECE) stream.
 - * Achieved a GATE score of 510 out of 1000.
- **NPTEL Online Certification** **Awarded by MoE, Govt. of India**

Demystifying Networking

 - * Successfully completed the course "Demystifying Networking" with a consolidated score of 23.5/25 in online assignments and 56.25/75 in the proctored exam.
 - * Total number of candidates certified in this course: 809.