

# YUVANSHANKAR AZHAGUMURUGAN

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## PROFESSIONAL SUMMARY

Articulate programmer, skilled in Data and Analytics, with experience in Data Engineering and Cloud Technologies. Proficient in **Python, C++, Java, Javascript, T-SQL, PL/SQL, Docker, and Microsoft Azure**, with strong background in Machine Learning and Internet of Things technologies. Demonstrated expertise in data presentation using **PowerBI**, developing applications using **Python, PowerApps** and building **IoT-based appliances**. Pursued a Master of IT (Software Engineering) with a strong academic background. Presently seeking opportunities in Data Analysis, but open to work on any IT technologies.

## TECHNICAL SKILLS

- **Data Analytics and Visualisation:** Power BI, Python, Excel, R
- **Data Engineering:** Python, Azure Data Studio, SSMS, SSIS, PL/SQL, PySpark
- **Artificial Intelligence:** LLMs, Generative AI, Machine Learning, Deep Learning systems
- **Python Frameworks & Libraries:** Flask, Django, OpenCV, Pandas, Scikit-learn, FastAPI, PySpark
- **Software Engineering:** MVC, GraphQL, ITIL
- **Testing & QA:** JMeter, Pytest, Selenium
- **User Interface Design:** Figma, Adobe XD, Canva, Bootstrap Studio, PowerApps
- **Cybersecurity:** Nmap, Metasploit, Kali Linux, BurpSuite, Nessus
- **Multimedia:** Video Editing, Photoshop, Logo Designing
- **Internet of Things:** Embedded C, MicroPython, Microcontrollers
- **Full-stack Development:** HTML, CSS, Flask, Django, FastAPI, C#, ASP.NET, Docker, Javascript
- **Programming Languages:** Python, C/C++, Java, C#
- **Version Control:** Git, GitHub
- **Administration Tools:** JIRA, Microsoft Project, MS Office (Word, Excel)
- **Integrated Development Environments (IDEs):** Eclipse, Visual Studio Code, Anaconda Prompt, Jupyter Lab
- **Databases:** MySQL, Oracle SQL, PostgreSQL, Microsoft SQL
- **Web Scraping:** BeautifulSoup, Selenium
- **Cloud Platforms:** Microsoft Azure, Google Cloud Platform

## WORK HISTORY

### Consultant, Data and Analytics (Part-Time) Aurecon

September 2023 – September 2024  
Darwin, Australia

- Working as Consultant (Part-time- due to my current Master's enrolment) at Data and Analytics division
- Predominantly working on Data Engineering Activities with tools like Python, Dockers, Azure, Jupyter Notebooks
- Experience with technologies such as Containerization (Dockers), Git, Data Science Language and Notebooks
- Experience in Data cleansing, Data Transformation, Data Loading
- Experience in Database Administration, with in Data Modelling using Microsoft SQL Server and relevant Database skills
- Familiarity in Data Presentation Techniques using Power BI

### Data Officer Northern Territory Government

June 2023 – July 2023  
Darwin, Australia

- Worked as Data officer with Office of Digital Government, within Department of Corporate and Digital Development, under Student Vacation Program
- Created information request form for capturing enquiries and intelligence gathered by the team
- Developed data template for standardising corporate telecommunications data
- Drafted first version of Telecommunication Data Governance Framework
- Undertook simple data quality activities

**Senior Analyst**  
**Ernst & Young LLP**

**July 2022 – Jan 2023**  
**Chennai, India**

- Worked in various technologies related to **Data Science, Machine Learning**, majorly with **Python**.
- Developed capstone Machine Learning web application projects using **FastAPIs**
- Worked on **Docker** technologies
- Worked on **Microsoft Azure Platform** cloud platform with official certifications
- Developed capstone projects with **PySpark**
- Experienced with **Microsoft's Power BI**

**Summer Intern**  
**Ernst & Young LLP**

**Feb 2022 – July 2022**  
**Chennai, India**

- Worked as a Summer Intern at Data Analysis in Technology consulting. Acquired certifications and training required for Senior Data Analyst role at EY

## **EDUCATION / CERTIFICATIONS**

- **Master of IT (Software Engineering)** **Feb 2023 –November 2024**  
Charles Darwin University, Casuarina NT 0810, Northern Territory, Australia
- **Bachelor's degree: Computer Science and Engineering** **June 2018 - June 2022**  
B. S. Abdur Rahman Crescent Institute Of Science And Technology, Tamil Nadu 600048, India
- [Microsoft Certified: Power BI Data Analyst Associate](#)
- [Google Data Analytics Certificate](#)
- AZURE CERTIFICATIONS:
  - [Microsoft Certified: Azure Fundamentals](#)
  - [Microsoft Certified: Azure AI Fundamentals](#)
  - [Microsoft Certified: Azure Data Fundamentals](#)
  - [Microsoft Certified: Azure AI Engineer Associate](#)
  - [Microsoft Certified: Azure Database Administrator Associate](#)
- [Foundation C# with Microsoft](#) (Microsoft and Freecodecamp)
- Microsoft SQL Server 2022 Essential Training (LinkedIn)
- SQL Server Integration Services (LinkedIn)
- SQL for Data Analysis (LinkedIn)
- The Python Certification Course (Udemy)
- Advanced Python: Working with Data (LinkedIn)
- C++ Essential Training (LinkedIn)
- Cyber-security and the Internet of Things (Coursera)
- Learning ITIL (LinkedIn)
- Intro to Service Management with ITIL® 4 (LinkedIn)
- Video Editing with Adobe Premiere Pro (Udemy)
- PHP and MySQL (IIT Bombay)
- Java (IIT Bombay)
- Blockchain Basics (Coursera)
- Data Science Foundations: Fundamentals (LinkedIn)
- Generative AI: Working with Large Language Models (LinkedIn)

## **PATENTS**

1. **A System And Method For Remote Controlling A Plurality Of Appliances:** Created an smart home system to help people with disabilities like Paraplegia (**Application number:** 202241045334; **Date of filing:** 09/08/2022).
2. **Elevated Drip Irrigation System Using Processed Bamboo for Surveillance Platform:** New structure of drip irrigation system using processed bamboo. (**Application number:** 202141012727; **Date of filing:** 24/03/2021).

3. **RFID-Based Elevated Grid Type Drip Irrigation System For Surveillance Robot Platform:** A grid-type surveillance platform is structured for crop analysis robots, where irrigation is implemented in drip format (**Application number:** 202141016513; **Date of filing:** 08/04/2021)

(Kindly visit this website to refer to the patents mentioned above: <https://ipindiaservices.gov.in/publicsearch>, as these patents are filed in India)

## PROJECTS

1. **ParaIoT: A smart-IoT system for Paraplegic individuals:** Proposed a new design for a smart home focused on people with paraplegia, based upon the setup and scanning of QR codes for toggling the status of the household appliance.
2. **IoT-based River Water Monitoring System (Ongoing):** Creating an IoT system that monitors river water on a lively basis for research purposes
3. **Student Appointment System using PowerApps:** Created a Customised Student Appointment System for Administrators in Charles Darwin Universities using Microsoft PowerApps.
4. **Customer Perception towards Gaming and Gaming Industry in Chennai:** This market research project aims to determine the consumers' perceptions and opinions towards games and their respective industries. The survey was done using Google Forms and analysed using Python. Created for an Internship.
5. **Timetable Generator using Python:** Created a mini-Python project to allocate courses for various departments in an institution.
6. **Rent Price Predictor:** Created a webpage using FastAPI with Machine Learning Models to predict prices using a Airbnb dataset.
7. **Online Web application to store details of patients visiting a dental clinic using Python Flask and MySQL:** Designed a mini website for a Dental clinic to store details of patients visiting a Dental clinic using Python Flask and MySQL as a Database. Created as a Capstone Project.

## VOLUNTEERING EXPERIENCE

- One of the founding members of "Crescent Technocrats Club" and conducted a Project Hackathon on the topic "Emerging technologies that can change the world."
- Performed as Student Placement coordinator of B.S. Abdur Rahman Crescent Institute of Science and Technology
- Performed as Secretary of the Crescent Data science Club of B.S. Abdur Rahman Crescent Institute of Science and Technology
- One of the main coordinators of the National Level Symposium "Arcane", conducted by the Computer Science Department B. S. Abdur Rahman Crescent Institute of Science and Technology
- Performed as a Secretary of CDU IoT Club

**LANGUAGES:** English (Bilingual Proficiency), Tamil (Native Proficiency), French (Elementary Proficiency)

**LICENSES:** NT Driving License

## REFERENCES

**Bharanidharan Shanmugam**  
Senior Lecturer - Information Technology  
Charles Darwin University, Darwin,  
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