

# ASWIN SUBRAMANIAN MAHESWARAN

(+34) 696 085 856 | [sm.aswin21@gmail.com](mailto:sm.aswin21@gmail.com) | [GitHub](#) | [LinkedIn](#) | [Personal Website](#) | Madrid, Spain

Eligible to sign internship agreement via IE University

## SUMMARY

Enthusiastic and hard-working computer science student with deep passion for machine learning, generative AI, and robotics.

## EDUCATION

### IE UNIVERSITY (IEU)

Bachelor's in Computer Science & Artificial Intelligence

Madrid, Spain

Expected: July 2026

- GPA of 8.78/10.00 and awarded IE Junior Advisory Board Award (Merit Scholarship of 80%)

### HINDUSTAN INTERNATIONAL SCHOOL

Chennai, India

British Diploma (A Levels)

Graduated: June 2022

- A Levels: Mathematics(A), Chemistry(A), Physics(B), Biology(B), and English Linguistics(C)

## PERSONAL PROJECTS (October 2023 - Present)

- Peppers and Emoji – Currently Developing an Emotion Recognition Model ([Link](#)):** Aims to break communication barriers between individuals with and without Autism by analyzing facial expressions and represent basic emotions in a visual manner using *an open-source algorithm – Deepface*. Achieved to provide real-time feedback with a fixed time duration in local server and developed a functioning website accessible in Chrome to *detect emotions parallelly with emojis* using cloud-based service ([Website](#)). Now working on implementing my model into pepper (*a semi-humanoid robot at university's robotics lab*) for personalized approach in the project. (Tech: Python, OpenCV, Face Recognition and Pandas Library, Django & JavaScript)
- Borat – Built a Custom Borat-inspired (movie) Interpreted programming language ([Link](#)):** Developed using lexer, parser, and AST's, using C and Python regex, constructing compilers and language design for enhanced data processing. (Tech: C, Tokenizer)
- Developed Asteroids, Arcade Game ([Link](#)):** Implemented using Hash Maps and Matrices for layout representation and recursive algorithms for efficient gameplay. Applied skills in game development and algorithmic problem-solving. (Tech: Python, Pygame).
- Fiesta – Built the Backend for website focused on nightlife in Madrid ([Link](#)):** Connected to MySQL and MongoDB databases in Django Framework and scraped data using local tourism websites. (Tech: Python, MySQL, MongoDB, Django, Web-Scraping).
- Water Distribution Plant Simulation Application ([Link](#)):** Connected to Azure IOT Hub for automated process and Streamlit services for messages on opening/closing of water valves based on the sensors. (Tech: Python, and Azure Cloud Services)

## RELEVANT EXPERIENCE

### IE ECON DATA LAB

Madrid, Spain

Project Lead

January - June 2022

- Developed data analytic models to assess the economic and social impacts of forest certification on over 1000 Spanish companies for a local firm utilizing extensive data analysis with Python and R. (Tech: Exploratory Data and Regression Analysis)

### JUNIOR TECH (CLEVER HARVEY) – ONLINE

Chennai, India

Member

May – July 2021

- Program specialized in frontend design for Infinity Cars 'website focused on user experience. ([Link](#)) (Tech: Flutter Flow, HTML)

## CONTRIBUTION AND EXTRACURRICULAR WORK – IE UNIVERSITY

- Acciona Sustainability Datathon:** Collaborated and built a machine learning model to predict water consumption over 7 days, using Scikit-learn's ensemble methods. *Leveraged data preprocessing and feature engineering to enhance model accuracy, placing in the top 5 finalists*. Awarded Finalist Certificate for innovative model building and data analysis techniques. *Finalist Certificate and Source Code* (Tech: Python, Methods in Scikit-learn framework) (October 2023)
- Venture Lab:** Collaborated and developed an energy-harvesting sole (of shoe) to charge devices via footsteps using piezoelectric components and Arduino board for testing the circuits; Reached the semi-finals round. ([Link](#)) (September – December 2023)
- Foqum Analytics AI Hackathon:** Collaborated and built Large Language Model (LLM) with Open AI API based on term sheets and focus on LangChain framework and prompt engineering. (Tech: Python, LangChain, FAISS Vector DB); *Top Ten* (November 2023)
- Robotics Lab:** Selected as a developer to contribute to projects, research on Robotics and AI. (October 2023 – Present)
- Coding Club:** Content lead organizing workshops and curate content for members with newsletters. (September 2022 – Present)

## TECHNICAL SKILLS AND PROFESSIONAL DEVELOPMENT

- Languages and Frameworks:** C (basics), OpenCV, Python, R, HTML, CSS, Scikit-learn, MySQL and Django.
- Tools:** Azure, AWS, IBM SPSS, GIT, Oracle Virtual Machine and Ubuntu.
- Introduction to AI by IBM ([Link](#)), Introduction to Big Data by UC San Diego ([Link](#))**
- Deep Learning Specialization by Andrew Ng (3/5):** *Learning about CNN's and gaining advanced insights.* ([Link](#))

## ADDITIONAL INFORMATION

- Languages:** English (Fluent), Tamil (Native), Gujrati (Native), Hindi (Fluent) & Spanish (Intermediate).
- Volunteer Work:** Served as an English Tutor with Chennai Mentors, teaching children spoken English for 2 months. (2021)
- Interests:** Sports, writing and movies.