

# Aswin Kumar Viswanathan

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## PROFESSIONAL SUMMARY

Graduate Software Engineer with **Stamp 1G** valid until 2027 and 1+ years of experience in Python, SQL, and deploying scalable ML and LLM models. Holds an MSc in Data Science & Analytics. **No immigration support required..**

## EDUCATION & QUALIFICATION

**MSc Data Science and Analytics, Maynooth University (1.1 Honours)** Sep 2024 – Sep 2025

**Key Modules:** Machine Learning & Neural Networks, Bayesian Analysis, Data Science and Big Data Analytics (Azure), Spatial Database, Modeling and Analytics (Excel), R Programming, System Development and Project Management.

**B.E, Electronics and Communication, R.M.K Engineering College (8.98 CGPA)** Jul 2019 – Jun 2023

**Key Modules:** Data Structures In C, Python Programming, Networking, and Design Analysis & Algorithm.

## TECHNICAL SKILLS

**Programming Language:** Python (Pandas, NumPy, OpenCV), R, SAS

**Databases:** PostgreSQL, MySQL, MongoDB

**Stack:** React JS, FastAPI, Javascript, CSS, HTML

**Visualization & Analytics:** Power BI, Power Query, Pivot Tables, Matplotlib, Seaborn

**ML & Deep Learning:** Scikit-learn, XGBoost, PyTorch, LLM, RAG

**Cloud & Tools :** Azure Data Factory, Azure Databricks, GIT, Docker

## WORK EXPERIENCE

Data Scientist Intern: **Rubixe - AI Solutions** Feb 2024 - Sep 2024

- Collected and cleaned large-scale customer and transaction datasets from SQL Server and flat files.
- Applied clustering (K-Means, DBSCAN) in Python to identify high-value customer groups.
- Built interactive **Power BI dashboards** to monitor sales trends, customer segmentation, and engagement.
- Delivered actionable insights to marketing teams, driving a **15% increase in campaign effectiveness**.

Computer Vision Intern: **e-con System** Jan 2023 – Aug 2023

- Analyzed device log data using Python and Excel, reducing issue resolution time by **40%**.
- Designed and deployed **Power BI dashboards** to track KPIs for leadership and R&D teams.
- Automated image-processing workflows with Python & OpenCV, improving operational efficiency by **45%**.
- Worked with and tested 3D cameras, performing calibration, validation, and troubleshooting to support product quality and customer requirements.

## PROJECTS

### [Restaurant Takeaway/Delivery Application](#)

- Led the design and development of a customer-focused restaurant takeaway web application utilizing MERN,
- enhancing user engagement and **operational efficiency** by **40%** while adhering to industry and SaaS standards.
- Collaborated with a team of 3 developers to streamline development and integrate cross-platform functionalities,
- Employing a teamwork and strategic approach that reduced **project completion time** by **30%**.

### [Application of GANs to Microscopy Images for Cell Culture Counting](#)

- Achieved **92% segmentation accuracy** using a Pix2Pix GAN on custom 256×256 microscopy image pairs. Automated dataset creation with **ImageJ + Python (Pandas, OpenCV)**, reducing manual annotation time by **80%**.
- Improved model performance through EDA, visualization, and metric-based tuning (IoU, Dice).
- Integrated the trained model into a **microscope-based pipeline** within the biology lab, enabling **real-time automated cancer cell counting** directly during imaging.