Ashwin Gopalan

Process Data Engineer

Aspiring Software Engineer

🏠 Dublin, Ireland

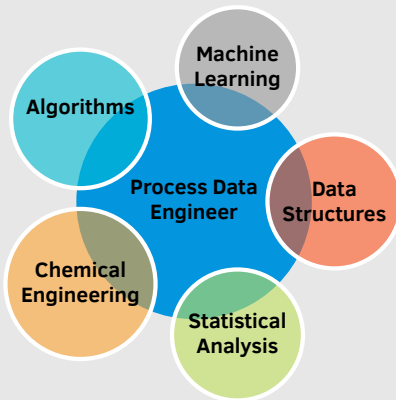📱 +353 892199750

✉ ashwin.gopalan95@gmail.com

in /in/ashwin-gopalan-a1648576/

Technical Skills

Programming

Over 10000 lines

- Python

Over 5000 lines

- C++

Coursework

- Advanced Programming in C++
- Linear Algebra
- Numerical Techniques
- Probability & Statistics

Independent

- Machine Learning (Stanford University)
- Deep Learning Specialization
- Convolutional Neural Networks by Andrew Ng

Education

09.2018 - 08.2020 **MSc. Chemical Engineering, Cum Laude**   TU Delft, The Netherlands
Specialization: Machine Learning in Pharmaceuticals

06.2012 - 05.2016 **BTech. Chemical Engineering**   NIT Trichy, India
Computer Science GPA: 9.0

Programming

Python ● Numpy ● Pandas ● Scikit-learn

C++ ● Data Structures & Algorithms ● System Design ● Tensorflow

SQL ● Computer Vision

Experience

Feb 2022 - Present   **Process Data Engineer**   APC, Dublin

- Testing and developing scalable machine learning models for chemical engineering unit operations
- Devising model supported experimentation for optimal processing of active pharmaceutical ingredient
- Skills: Pandas, Numpy, Scikit-learn, Multivariate Data Analysis, Tensorflow

Oct 2020 - Dec 2021   **Research Data Scientist**   Ardena, Amsterdam

- Researched and development of in-house solvent selection tool by employing machine learning models
- Carrying out crystallization experiments and analyzing data-rich experimentation
- Skills: Data Mining, Pandas, Numpy, scikit-learn, Machine Learning

Jul 2016 - Aug 2018   **Process Engineer**   Wood, Chennai

- Performed numerical simulation to model chemical processes like distillation and reactor systems
- Developed Process flow diagrams and instrument data sheets for designing oil and gas processes

Projects

2021 - Present **Image Detection in Laser induced crystallization**   TU Delft

- Developing crystal detection tool using openCV and Covolutional neural networks. Deployed the YOLO algorithm to determine the nucleation probability of laser induced crystallization
- **Tools**: Python, scikit-learn, pandas, tensorflow

Jan - Oct 2020 **Software Tool Development for Solvent Selection**   Ardena

- Developed a software tool that optimally selects the solvent for experimentation based on multivarite data analysis and machine learning models
- **Tools**: Python, Scikit-learn, Pandas, Numpy, Regression, Random Forest, SVM, Neural Networks