MUHAMMAD NAQIUDIN BIN NOOR AFFANDY

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SUMMARY

Detail-oriented **IT System Engineer** with a **BSc (Hons) in Computer Science (Data Science)** from Universiti Kebangsaan Malaysia **(CGPA 3.70/4.00)**, currently serving as an **L3 Master Data Solution Developer** at **Infineon Technologies**. Strong background in data analytics, statistical analysis, database management, and enterprise data systems, with hands-on experience handling large-scale datasets and SQL-driven reporting. Proficient in data preprocessing, transformation, and analysis using Python, SQL, PL/SQL, and Power BI, with practical exposure to machine learning techniques for predictive and analytical use cases. Microsoft-certified in Azure Data Fundamentals, with proven ability to ensure data quality, optimize processes, and support data-driven decision-making in cross-functional environments. Open to opportunities where analytical thinking, technical expertise, and continuous learning can contribute to impactful and scalable solutions.

EDUCATION

UNIVERSITI KEBANGSAAN MALAYSIA (UKM) *SEP 2021 – JUL 2025*
Bachelor of Computer Science (Data Science) | CGPA: 3.70/4.00 *(First Class)*

MALACCA MATRICULATION COLLEGE *MAY 2020 – MAY 2021*
Physical Science (Module 2) | CGPA: 3.42/4.00

RELEVANT EXPERIENCE

INFINEON TECHNOLOGIES *JUL 2025 – PRESENT*
IT System Engineer – Master Data Developer (Contract)

- Managed end-to-end incident resolution using Remedy, handling low- to critical-priority issues and executing monthly Change Requests (CRs) via Octane to deliver long-term system enhancements and fixes.
- Maintained, enhanced, and supported Infineon's enterprise engineering database systems, ensuring data integrity, availability, and seamless data transfer across multiple system classes and international environments.
- Performed extensive database operations including data patching, cleaning, updating, restructuring, deletion, and manipulation using PL/SQL; developed functions, procedures, and stored packages from scratch to automate and optimize backend processes.
- Designed and improved ETL workflows, data warehousing processes, and error-handling modules, implementing business logic at the database layer to enhance application performance and system reliability.
- Enhanced backend and frontend application features using C#, contributing to system improvements, feature releases, and performance optimization.
- Served as Software Release Manager (SRM), executing weekly software releases using in-house tools, Jenkins, and deployment pipelines across DEV, INT, and PROD environments to ensure UI consistency, data accuracy, and system stability.
- Supported SAP-related projects involving data migration, restructuring, duplication management, data cleansing, and report generation for cross-functional teams.
- Utilized tools including WinSCP for secure file transfers, Jira for issue tracking, and TFS/Azure DevOps Server via Visual Studio for version control, script management, and collaborative development.
- Communicated directly with users and stakeholders to troubleshoot and resolve database, backend, and UI-related issues, ensuring smooth system operations across departments.
- Produced comprehensive documentation for incidents, change requests, scripts, and project deliverables to support audit readiness, compliance, and knowledge transfer.
- Actively leveraged AI-powered productivity tools such as GitHub Copilot, Claude AI, GPT, Grok, and LLaMA to improve development efficiency, problem-solving speed, and overall productivity.
- Gained strong technical exposure and knowledge transfer (KT) in PL/SQL, C#, enterprise databases, SAP-integrated systems, and large-scale IT system management.

AIRASIA (K-YOUTH EMPLOYMENT PROGRAMME) *APR 2025 – JUN 2025*

Data Analytic (Apprenticeship)

- Received structured professional training on working in a multicultural environment, effective communication, presentation skills and cross-team collaboration.
- Working with the team to developed machine learning models using XGBoost for food wastage prediction, involving data cleaning, feature engineering and hyperparameter tuning.
- Gained hands-on experience on Google Cloud Platform (GCP) for data tracking, validation and workflow monitoring.
- Actively contributed in project meetings with data scientist's team to discussing model performance, data issues and improvement strategies.

TM RESEARCH & DEVELOPMENT *SEP 2024 – JAN 2025*

Data Science Intern (Internship)

- Cleaned and preprocessed over thousand records from complex datasets including access networks, termination logs, CTT, and speed tests within 3 months, increasing data quality by over 90%, crucial for real-time fault monitoring and QoS improvements.
- Developed and fine-tuned machine learning models (Random Forest Regression and LSTM) by using time-series data, enabling accurate prediction of internet speed fluctuations and fault diagnostics, achieving over 80% prediction accuracy.
- Created and presented analytical dashboards weekly using Power BI and Python (Matplotlib, Seaborn), delivering actionable insights that helped the network team prioritize major optimization initiatives within one quarter.
- Supported the migration of operational data from OracleDB to MariaDB using SQL, mapping and transforming over 100,000 records, and ensuring seamless integration during the ETL process, all completed within project timelines.
- Automated recurring data extraction and transformation tasks using the Selenium Robot Framework, reducing manual workload by 60% and improving report generation speed by over 40%.
- Worked in Agile sprints using Jira and GitLab, contributing to 8+ sprint cycles, managing code collaboration, issue tracking, and merge requests, and supporting a structured development workflow across of data analytics team.

SKILLS & ABILITIES

Programming Languages	**:** Python – Java – JavaScript – TypeScript – SQL – PL/SQL – PHP – R – C#
Web Development	**:** HTML – CSS – React – Angular – jQuery – Bootstrap – Django – Flask – XAMPP– REST API
Data Science & AI Tools	**:** Scikit-Learn – Ultralytics – TensorFlow – PyTorch – YOLOv8 – OpenCV – Pandas – NumPy – Seaborn – Matplotlib – Anaconda – LabelImg – Selenium
Big Data & Cloud	**:** Hadoop – Hive – Apache Pig – Azure – Microsoft Fabric
Databases	**:** MariaDB – OracleDB – Microsoft Access – PhpMyAdmin - SAP
Tools & Software	**:** GitLab – Linux – VMware – Visual Studio Code – Visual Studio – Jupyter Notebook – Google Colab – Jira – Microsoft Power BI – Microsoft Power Query – Google Sheets – Microsoft Excel – Microsoft PowerPoint – Microsoft Word – Pivot Table – WinSCP – Confluence – Remedy – Octane – GitHub Copilot – Azure DevOps Server – Jetkins – SharePoint
Soft Skills	**:** Leadership – Communication – Team Collaboration – Problem Solving – Agile Mindset – Critical Thinking – Fast Learning – Adaptability – Agile
Languages	**:** English (Professional Proficiency) – Bahasa Melayu (Native Proficiency)

AWARDS & HONORS

2025	Dean's List Award, 6 out of 8 semesters
2025	3rd Place, Football, Piala Dekan, Faculty of Technology & Information Science
2024	Program Leader, SCHOOL@UKM Workshop Prototyping using Figma and Bravo
2023	4th Place, E-Sport (Valorant) Piala Dekan, Faculty of Technology & Information Science
2023	4th Place, Football, Piala Dekan, Faculty of Technology & Information Science
2022	Bronze Award, AR/VR Reality Competition, Mobile Application Development Club
2021	Silver Award, International Digital Innovation and Invention Challenge (IDIIC)

PROJECTS

REAL-TIME FACE MASK DETECTION SYSTEM USING YOLOV8

Technologies & Tools: Python, YOLOv8, OpenCV, Flask, NumPy

- Developed a real-time computer vision system to detect face mask compliance using YOLOv8 and OpenCV.
- Trained and fine-tuned a custom object detection model to classify mask usage into Proper (Green), Improper (Yellow), and No Mask (Red) categories.
- Deployed the trained model as a Flask-based web application enabling live webcam detection and real-time monitoring.
- Optimized inference pipeline to reduce latency and improve detection performance in real-time environments.
- Evaluated model performance using industry-standard metrics: Precision, Recall, mAP@50 and mAP@50-95
- Impact: Demonstrated hands-on experience in AI model training, performance evaluation, and end-to-end deployment of real-time systems.

BREAST CANCER PREDICTION SYSTEM USING HOVERNET (FINAL YEAR PROJECT)

Technologies & Tools: Python, HoverNet, Django, SQL, OpenCV, Pandas, HTML, CSS

- Developed a web-based deep learning system for breast cancer prediction using the HoverNet framework for simultaneous nuclei segmentation and classification of histopathology images.
- Utilized the PanNuke dataset to analyze cellular structures and identify cancer-related patterns.
- Implemented data preprocessing, image normalization, and validation processes to ensure model reliability and consistency.
- Designed a Django-based backend integrated with SQL database to securely manage image uploads and prediction results.
- Built a user-friendly web interface for image upload, automated analysis, and structured result visualization.
- Impact: Showcased strong capabilities in AI application development, medical image analysis, and full-stack system integration.

SENTIMENT ANALYSIS MODEL ON TWITTER DATA

Technologies & Tools: Python, Scikit-Learn, Pandas, NLP, Jupyter Notebook

- Built a sentiment classification pipeline to categorize tweets into positive, negative, and neutral sentiments.
- Performed text preprocessing including cleaning, tokenization, and vectorization (feature extraction) on unstructured text data.
- Implemented and compared multiple machine learning models including Logistic Regression, Naive Bayes, and Support Vector Machine.
- Evaluated model performance using accuracy and classification metrics to identify the best-performing algorithm.
- Impact: Strengthened expertise in Natural Language Processing (NLP), feature engineering, and comparative model evaluation.

CUSTOMER SEGMENTATION ANALYSIS USING K-MEANS CLUSTERING

Technologies & Tools: Python, Pandas, Matplotlib, Seaborn, Scikit-Learn, Jupyter Notebook

- Applied K-Means clustering to segment customers based on annual income and spending behavior.
- Conducted exploratory data analysis (EDA) to identify behavioral trends and distribution patterns.
- Visualized clustering results to interpret customer segments and highlight high-value groups.
- Translated analytical findings into actionable insights for targeted marketing and customer engagement strategies.
- Impact: Demonstrated strong foundation in unsupervised learning, data visualization, and business-driven analytics.

CERTIFICATIONS

April 2025	Asia Pacific University of Technology and Innovation certified: Analyzing Data with Power BI
December 2024	HackerRank Certified: Software Engineer Intern
December 2024	HackerRank Certified: Frontend developer (React)
February 2025	Microsoft Certified: Azure Data Fundamentals
February 2025	Microsoft Certified: Power BI Data Analyst Associate
December 2024	HackerRank Certified: SQL (Intermediate)