

# JIA HAO, NG

<https://ngjiahao.vercel.app>

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Puchong, Selangor, Malaysia

Detail-oriented and analytical MSc Bioinformatics graduate with a strong foundation in data science, machine learning, and statistical analysis. Proficient in Python and SQL, with experience in data processing, visualization, and reporting. Skilled in transforming complex datasets into actionable insights, developing predictive models, and working with real-world biomedical and clinical data. Experienced in developing and maintaining dashboards and reports, ensuring data accuracy, and collaborating with cross-functional teams. Adept at problem-solving, pattern recognition, and continuous learning, with a passion for leveraging data to drive informed decision-making.

## WORK EXPERIENCE

### Research Associate

Semenyih, Malaysia

University of Nottingham

June 2025 - Current

- Designed two studies comparing in-app scores and engagement metrics with standard psychometric and behavioral assessments.
- Translated research designs into technical requirements for app developers and industry partners.
- Coordinated with NTU Singapore to validate the suitability and measurement accuracy of in-app exercises for children aged 6–9.
- Worked with industry stakeholders to align research objectives with commercial goals.

### Research Assistant (Part-time)

Semenyih, Malaysia

University of Nottingham

March 2025 - June 2025

- Collected and managed research data.
- Completed ad hoc tasks such as literature reviews, data entry, and assisting with manuscript preparation.

### Research Assistant (Part-time)

Semenyih, Malaysia

University of Nottingham

September 2023 – August 2024

- Edited and proofread academic manuscripts, ensuring accuracy, clarity, and adherence to publication standards. (Refer to Publication Section)
- Collected and managed research data, maintaining organized databases and ensuring data integrity for analysis.
- Assisted in the preparation of research reports and presentations for academic conferences.

### Branch Manager

Petaling Jaya, Malaysia

Sunway Multicare Pharmacy

March 2023 – September 2023

- Managed daily operations of pharmacy branch, including sales, inventory, staffing, hiring, training, and customer service.
- Ensured compliance with all relevant laws, regulations, and policies.
- Maintained rapport with healthcare providers, insurance companies, and other stakeholders.
- Increased monthly sales by 20% through optimizing inventory management and staff training.
- Reduced stock discrepancies by 20%, showcasing attention to detail and a goal-oriented approach.

### Nutritionist

Petaling Jaya, Malaysia

Sunway Multicare Pharmacy

July 2021 - March 2023

- Assessed customer needs, recommended products, and managed inventory while ensuring smooth customer interactions.
- Coordinated with suppliers and the purchasing team to fulfil credit sales orders and time-sensitive customer requests.
- Oversaw staff schedules, provided product training, and organized a sales event that generated RM75,000 in revenue.
- Controlled cash flow, managed petty cash, and adapted quickly to new product lines to meet operational demands.

### Substitute Teacher

Puchong, Malaysia

SMK Pusat Bandar Puchong 1

April 2021 – July 2021

- Managed classrooms of up to 30 students, maintaining discipline and ensuring active engagement with lesson plans.
- Prepared lesson plans and monitored students to follow through the lessons.
- Evaluated and documented students' progress.

### Nutritionist

Puchong, Malaysia

BMS Organics (FMC Greenland Sdn Bhd)

Dec 2019 – May 2020

- Analysed and assessed customers' diet and nutritional goals, and suggested suitable lifestyle guide.

- Managed shop outlet when supervisor is not present.
- Provided customer service including managing complaints and customer feedbacks.

## EDUCATION

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### MSc Bioinformatics

Kuala Lumpur, Malaysia

Universiti Malaya

Sep 2023 – Dec 2024

- **Thesis:** *"Automated Cardiovascular Disease Detection Using Deep Learning Segmentation of PLAX View Echocardiography and Multi-Variable LSTM Analysis"*
  - Utilized U-Net model for echocardiographic segmentation and developed LSTM model for disease classification.
- Focused on applying ML (including oversampling) to biomedical data analysis.
- Developed Python and R programming skills, along with tools like GROMACS, Chimera, and VMD for protein structure prediction.
- Created web pages to host projects, built databases & systems with MySQL, PHP & HTML.

### BSc (Hons) Nutrition

Semenyih, Malaysia & Nottingham, UK

University of Nottingham

Sep 2016 – Jul 2019

- **Thesis:** *"Micronutrients (Vitamin C and Zinc) and their impact on DNA damage - a literature review"*
  - Explored the importance of Vitamin C and Zinc in protecting telomeres from DNA damage.
- Excelled academically and received exchange opportunity to University of Nottingham UK.
- Explored health issues and solutions via pharmacology and lifestyle interventions.
- Performed orchestral events annually as an active **Music Society** member.

Volunteered in museum & participated in peer-mentoring programme for **Nottingham Advantage Award**.

## SKILLS

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- **Machine Learning/AI:** CNN, LSTM, U-Net, Oversampling for skewed data
- **Programming:** R, Bash, and familiar with Python and key AI/ML libraries such as TensorFlow, Keras, and PyTorch.
- **Data Analysis:** Pandas, NumPy, SciPy, OpenCV
- **Web & Database Development:** HTML, CSS, CGI scripts, PHP, MySQL
- **Pharmacy & Retail Management:** Cost management, inventory control, customer service, sales operations
- **Technical & Administrative Support:** Issue resolution, documentation, procurement, system maintenance

## PUBLICATION

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[1] Lim, A., Chia, W. C., Huang, H., & Ng, J. H. (2024). Explore the Feasibility of Integrating EEG Neurofeedback in VR Exercise Gaming for Perceived Physical Exertion Study and Classification using Machine Learning. In *2024 IEEE 12th Conference on Systems, Process & Control (ICSPC)* (pp. 113-118). IEEE. <https://doi.org/10.1109/ICSPC63060.2024.10862586>

## REFERENCE

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### Dr. Alfred Lim

Assistant Professor,

University of Nottingham.

Email: [Alfred.Lim@nottingham.edu.my](mailto:Alfred.Lim@nottingham.edu.my)

(Dr. Alfred Lim was my supervisor during my tenure at the University of Nottingham.)

### Associate Prof. Dr. Sorayya Bibi Malek Binti Malek Abd Rashid

Universiti Malaya.

Email: [sorayya@um.edu.my](mailto:sorayya@um.edu.my)

(Dr. Sorayya was my supervisor for my MSc thesis at Universiti Malaya.)

### Dr. Shi Hui Cheng

Assistant Professor,

University of Nottingham.

Email: [ShiHui.Cheng@nottingham.edu.my](mailto:ShiHui.Cheng@nottingham.edu.my)

(Dr. Shi Hui Cheng provided support and mentorship as my personal tutor throughout my undergraduate studies.)