


YAM HO WING (ISAAC)


Software Engineer • Biomedical Engineering Background


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 Current Basic Salary: HKD 26,000 / month (without bonus)

 Expected Basic Salary: HKD 29,000 - 33,000 / month (Negotiable)

 Notice Period: 1 Month (Negotiable)

PROFESSIONAL SUMMARY

Biomedical Device Engineer pivoting to software development, bringing **3 years of hands-on experience** at the intersection of medical technology and full-stack engineering. Proficient in **Python, JavaScript/TypeScript, React, Node.js, Docker, and AWS**. Proven track record delivering laboratory middleware, RFID inventory systems, and web applications that improve efficiency and data integrity.

Seeking a **Junior / Graduate Software Engineer** position where I can leverage strong analytical skills, domain knowledge in healthcare, and a passion for clean, maintainable code.

Work Experience (Full-time: 2 years)

Technical Engineer

I-Tech Healthcare Ltd, Hong

Kong 06/2023 – Present

- Managed CLIA analyzer in hospital and clinical labs, ensuring compliance with industry standards.
- Participate in various projects related to the healthcare sector.
- Enrolled in and completed a professional training course provided by a multinational corporation, earning a certification.
- Expanded the CLIA analyzer model usage from 5 to 8 units and fecal analyzer from 2 to 6 units, actively participating in both expansion projects. Took full responsibility for the project as an engineer.
- Provided comprehensive training to new hires and maintained

meticulous documentation using MS Word and Excel.

- Assisted in marketing efforts to promote medical devices to healthcare professionals.
- Manage a project related to the inventory management system
- Managed projects related to the laboratory information system, building middleware to ensure seamless connection between healthcare analyzers.
- Built a website for the company with React and a headless CMS.
- Communicate with the end user and the department head.

CORE TECHNICAL SKILLS

Category	Technologies & Tools
Languages	Python (Flask/FastAPI), JavaScript, TypeScript
Front-End	React (+ Hooks & Context), Next.js, HTML5, CSS3, Tailwind, Bootstrap
Back-End / API	Node.js, Express.js, Django REST, RESTful & GraphQL API design
Databases	PostgreSQL, MySQL, MongoDB, Firebase (Firestore)
DevOps & Cloud	AWS (EC2, S3, Lambda, RDS), Docker, Git/GitHub Actions CI/CD
Testing & QA	Jest, React Testing Library, Postman, Swagger

Education

B.Sc. Biomedical Engineering — City University of Hong Kong *Mar 2023*

Key Coursework and Skills:

- **Biomechanics and Bioinstrumentation:** Design and testing of medical devices.
 - **Medical Imaging and Signal Processing:** MRI, CT scans, and signal analysis techniques.
 - **Healthcare Systems and Management:** Optimization of medical technology management.
 - **Programming and Data Analysis:** Python for data analysis, modeling, and simulation in biomedical applications.
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PROJECT EXPERIENCE

RFID Inventory Management Platform | Python • FastAPI • PostgreSQL • AWS IoT Core

- Spearheaded design & build of an RFID-based warehouse system for medical consumables.
- Implemented real-time tag event ingestion micro-services (Python + MQTT) achieving **98 % stock-count accuracy** and cutting monthly audit time by **40 hours**.
- Built interactive dashboard with React + WebSocket for live updates; deployed on AWS ECS.

Laboratory Middleware Connector | Node.js • Express • MongoDB

- Developed REST API that **bridged 8 CLIA analyzers** with existing LIS, eliminating manual CSV imports.
- Integrated HL7/FHIR message formatting; reduced turnaround time for result reporting by **65 %**.

Real-Time Chat Application | React • TypeScript • Firebase

- Created WhatsApp-style chat with authentication, typing indicators, and media uploads.
- Employed Firebase Security Rules and Firestore indexes; achieved <150 ms mean message latency during load tests of 1 500 concurrent users.

Algorithmic Trading Bot | Node.js • Binance API — *Personal, 2023*

- Engineered event-driven strategy engine executing conditional orders; modularised indicators via TypeScript interfaces.
- Deployed on AWS Lambda for 24 × 7 operation; simulated **12 % annualised ROI** on

historical data.

Certifications and Training

- **Professional Training in CLIA Analyzer Management**
- Provided by MNC Corporation

- **Online Certificate in Full-Stack Development**
- Codecademy Courses (Please check LinkedIn profile for certificate credentials)

- **AWS Certified Cloud Practitioner (2024)**

Additional Information

- **Career Transition:** I am passionate about programming and have self-taught various programming languages and technologies to pivot my career toward software engineering.
 - **Languages:** Cantonese (native), English (fluent), Mandarin (fluent)
 - **Interests:** Self-learning, developing apps and websites, such as a trading bot integrated with an exchange to execute trades based on predefined conditions. Or a real-time chatbot using express.js and Socket.io.
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