

KHAN MAHMUD ENAMUL HASAN

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SUMMARY

A dedicated Software Analyst and professional Android Developer with 8.6+ Years of Experience, specializing in modern Android architecture (Jetpack Compose, MVVM, Clean Architecture, Hilt). Proficient in Java, Kotlin, and Python with a strong background in data analysis, backend automation, and embedded system design (IoT). Experienced in leading development teams, solving complex technical challenges, and delivering highly scalable and robust software solutions.

PROFESSIONAL EXPERIENCE

Software Analyst

Jan 2025 – Present

SSL Wireless | Dhaka, Bangladesh

- Lead analysis of SRS/BRD, clarify requirements, identify project challenges, and align with UI/UX teams.
- Design database schemas and prepare high-level architecture diagrams for complex software solutions.
- Select technology stacks and develop core business logic utilizing modern Android standards (MVVM, Clean Architecture, Jetpack Compose).
- Architected automated attendance modules and formulated CRM project specifications.

Senior Software Specialist

May 2023 – Dec 2024

SSL Wireless | Dhaka, Bangladesh

- Conducted comprehensive Android app development, from design through to deployment and database management.
- Analyzed business requirements received from the Project Management Team to identify edge cases and technical constraints.

Software Engineer

Oct 2021 – Apr 2023

Aventra Consultant LTD

- Guided the Android team through application development and deployment life cycles.

Embedded System Designer

Mar 2020 – Sep 2021

Qubits LTD

- Designed and built tailored electronic devices and software solutions utilizing IoT hardware.

Senior Product Lead

Jan 2018 – Jun 2019

MuthoPay LTD

- Led a dynamic team of Android developers, overseeing strategic task distribution and execution.

Android Developer

Mar 2017 – Jan 2018

HEXit LTD

- Developed and maintained Android applications, gathered requirements to write SRS, and fixed critical bugs.

TECHNICAL SKILLS

Android Development: Kotlin, Java, Jetpack Compose, MVVM, Clean Architecture, Hilt, Coroutines, Room, SQLite, Retrofit, Glide, Coil, Firebase, Stripe, Paging, Maps/OpenStreetMap.

Python & AI/Data: Python, FastAPI, Selenium, BeautifulSoup, Scrapy, Pandas, NumPy, OpenCV, Scikit-learn, TensorFlow, PyTorch, SQL, Machine Learning, NLP.

Embedded Systems & IoT: ESP32, ESP8266, Arduino, STM32, PCB Design (EasyEDA), Circuit Design, Stepper Motors, Wireless Communication.

Tools & Environments: Linux (Ubuntu/Mint), Git, Docker, Figma, Vercel, CI/CD.

PUBLICATIONS

1. **Khan Mahmud Hasan et al.** Investigating the Z-scan technique for quantifying circulating cell-free DNA (ccfDNA) extracted from blood plasma as a potential biomarker for various cancers. *Biomedical Physics & Engineering Express* (Vol 10, Issue 4, 2024).
DOI: 10.1088/2057-1976/ad4890
2. **Khan Mahmud Hasan et al.** Nonlinear optical phase shift in blood plasmas for neoplasia diagnosis. *Optics Express* (Vol 31, Issue 13, 2023).
DOI: 10.1364/OE.490188
3. **Khan Mahmud Hasan et al.** Linear and thermo-optically generated nonlinear optical response of bovine serum albumin and its constituent amino acids in continuous wave z-scan. *AIP Advances* (Vol 13, Issue 3, 2023).
DOI: 10.1063/5.0135447
4. **Khan Mahmud Hasan et al.** Effects of Simple Cooling Methods on Power Output and Efficiency of Solar Panels in Outdoor Conditions. *ARPJ Journal of Engineering and Applied Sciences* (Vol 17, No 2, 2022).
URL: arpnjournals.org/jeas/research_papers/rp_2022/jeas_0222_8847.pdf
5. **Khan Mahmud Hasan et al.** Closed aperture CW Z-scan of L-tryptophan for determination of optical nonlinearity in the thermal regime. *Applied Physics B* (Vol 127, Issue 9, 2021).
DOI: 10.1364/JOSAB.432845
6. **Khan Mahmud Hasan et al.** Monte Carlo approach to Bose-Einstein condensation in a harmonic trap. *International Conference on Physics* (2020).
DOI: 10.13140/RG.2.2.34866.76484
7. **Khan Mahmud Hasan et al.** Numerical Analysis of Inverted Pendulum using 12th-order Runge-Kutta Integrator. *Conference Poster* (2019).
URL: researchgate.net/publication/331115224

EDUCATION

Shahjalal University of Science & Technology (SUST)

- *Master of Science (MSc) in Physics* (2019) – CGPA: 3.20
- *Bachelor of Science (BSc) in CSE (2nd Major)* (2018) – CGPA: 3.42
- *Bachelor of Science (BSc) in Physics* (2018) – CGPA: 3.14