**SAMI NATSHE  
Embedded Software Engineer  
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**SUMMARY**  
Embedded Software Engineer with over **4 years** of experience in a global semiconductor corporation, specializing in **C programming** for software and firmware development in Infrastructure Processing Units (IPUs) and Smart NICs.

* Experienced in developing **RT**/**Embedded Linux systems** (**US**) using **C programming** language.
* **Experienced in embedded and networking protocols, including SPI, I2C, UART, TCP, and UDP.**
* Extensively experienced in firmware **validation**, test **automation**, and low-level **debugging**.
* Familiar with **C#**, **C++ and Python**, with practical experience in developing test scripts and automating processes for system validation, and **proficient** in **GIT** for version control and collaboration.
* **Scrum Master**, experienced in leading Agile teams, coordinating tasks, and promoting collaboration in fast-paced environments.
* Passionate about exploring **Artificial Intelligence (AI)** applications in embedded systems and expanding knowledge on AI deployment in embedded settings.
* A results-oriented team player with excellent problem-solving, communication, and collaboration skills.

**WORK EXPERIENCE  
2019 – 2024: Firmware Developer | Intel**

* **Developed, tested, Integrated, and debugged** embedded firmware for high-performance Smart NICs.
* Translated high-level project features and system requirements into well-structured software architectures and optimized firmware.
* **Led new ASIC bring-up from the firmware side**, **collaborating closely with Architecture, Hardware, and Cloud Software teams to deliver successful end-to-end solutions.**
* Identified, analyzed, and solved root-cause bugs/defects in firmware and hardware.

**2017 – 2019: Software Validation and Infrastructure Engineer | Intel**

* Designed and developed system testing infrastructure for the RF firmware (FW) layer of an LTE modem for wearable devices.
* **Led efforts to ensure 800+ tests passed, overcoming significant challenges with initial test failures.**
* Collaborated with cross-functional teams to troubleshoot, resolve issues, and implement corrective actions, ensuring the system met design requirements in a continuous integration environment.
* Developed automated pre/post-silicon functional validation tests to validate system compliance with specifications.

**EDUCATION**

2017 – 2019: **M.Sc.** Computer Sciences | Hadassah Academic College - Jerusalem

2012 – 2016: **B.Sc.** Electricity and Electronics Engineer| Holon Institute of Technology – Holon

**CERTIFICATIONS**

**AI Engineer**, Hebrew University (Expected completion: August 2025)

**Embedded C Programming with STM32 Microcontroller**, Udemy (2024)

**Introduction to Agile: Scrum and Kanban**, Udemy (2024)

**TECHNICAL SKILLS**

C, C++, Python, Embedded Linux, Microcontroller architecture, AI, Embedded communication protocols such as SPI, I2C, and UART, Networking protocols TCP/IP, System integration, Firmware validation, and automation, GIT.

**LANGUAGES**Arabic, Hebrew, and English