### **Efrat Zusman**

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### **Summary**

Motivated Electrical Engineering student with hands-on experience in digital design, verification, and object-oriented programming, currently serving in a student verification role at MaxLinear. Eager to leverage strong analytical skills, a solid academic background (88% average), and practical project experience to contribute effectively as a Junior Verification Engineer in ASIC development. Proficient in SystemVerilog, Verilog, C++, and Python, with exposure to industry-standard EDA tools.

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### **Experience**

**Verification Engineer - Student Position** | MaxLinear | Israel

*October 2023 - Present*

* Actively contribute to ASIC verification efforts for digital designs, working closely with senior engineers.
* Assisted in developing and executing block-level verification plans for various modules.
* Supported sanity testing and qualification processes to ensure IP quality and adherence to specifications.
* Applied object-oriented programming (OOP) principles for verification testbench development and scripting.
* Gained exposure to industry-standard EDA tools and collaborative design flows within a global team environment.

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### **Education**

**Bar-Ilan University** | Ramat Gan, Israel

**B.Sc. in Electrical Engineering** | Expected Graduation: 2025

* **Academic Average:** 88%
* **Relevant Coursework:** Digital Design, Computer Architecture, VLSI Systems, Microprocessors, Introduction to AI, Data Structures, Algorithms, Linear Algebra, Probability & Statistics.

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### **Technical Skills**

* **Hardware Description Languages:** Verilog, SystemVerilog
* **Programming Languages:** Python (OOP), C, C++, Assembly (RISC-V), MATLAB
* **Verification Methodologies:** Basic understanding of ASIC verification concepts, exposure to SystemVerilog testbenches.
* **Tools & Platforms:** ModelSim, Xilinx Vivado, Cadence (basic exposure), Git, Linux, OpenCV, scikit-learn, STM32 Microcontrollers, FPGA

*   **Concepts:** Digital Design, Computer Architecture, VLSI Systems, Data Structures, Algorithms, Machine Learning, Signal Processing, Image Processing, Real-time Systems.

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### **Selected Projects**

**Car License Plate Detection**

*   Developed an image processing system using Python and OpenCV for license plate detection.
*   Utilized edge detection, contour analysis, and OCR, achieving high accuracy in diverse conditions.

**Weather Station with STM32 Microcontroller**

*   Designed and implemented a real-time weather station using STM32, programming in C.
*   Interfaced temperature, humidity, and pressure sensors; displayed data on an LCD with efficient resource management.

**Voice Recognition System**

*   Created a foundational voice recognition system using Python and machine learning libraries.
*   Focused on audio input processing, feature extraction, and model training for command recognition.