# JaeSeong Kim

Electrical engineer with experience in development, and implementation of algorithms in computer vision, image processing, and machine learning. Proficient in OpenCV for advanced image processing tasks and PyTorch for deep learning. Extensive background in image quality analysis and ISP tuning. Proficient in Python, C/C++, and Matlab. Strong multicultural skills, with native proficiency in Korean, English, and Chinese.

# **Work Experience**

Computer Vision Engineer @ Samsung Corephotonics

Nov 2022 - Aug 2025 | Tel Aviv, Israel

- Developed smartphone-compatible anti-spoofing facial recognition system, achieving 10x lower error rate compared to standard RGB-based solutions
  - Engineered polarization-sensitive neural networks to distinguish authentic faces from paper/screen-based spoofing attempts
  - Simulated hybrid RGB-polarization sensor integration to validate effectiveness for anti-spoofing applications

(Thesis research collaboration between Samsung Corephotonics and Tel Aviv University, patent co-inventor [WO 2024/161329])

- Improved EIS correction and motion blur measurement accuracy by 25% and reduced analysis time from hours to 10 minutes by implementing automation software
- Tuned ISP by measuring image quality factors with IMATEST software and optimizing ISP pipeline using Qualcomm Chromatix.

**Software Developer** @ Pit-In Global

Jul 2017 - Sep 2017 | Seoul, Korea

 Created SQL database for location tracking by developing software for Raspberry Pi that leverages Bluez to collect Bluetooth signal strength indicators (RSSI) from customers' mobile devices

Space Manager @ CoderBunker

Jan 2016 - Mar 2016 | Shanghai, China

- Served as Assistant Instructor for Arduino Programming Workshop
- · Assisted in holding software workshops and product presentations.
- Managed community marketing and advertisement on Chinese social media.

# **Educational Background**

#### Ms.c Electrical and Electronics Engineering

Tel Aviv University (GPA: 94)

Oct 2022 - Apr 2025

- Supervision under Prof. David Mendlovic
- Thesis: Enhanced Face Anti-Spoofing Using Angle of Linear Polarization
- Paper: On the Effectiveness of Sparse Linear Polarization Data for Face Anti-Spoofing (published on IEEE Sensors Journal)

### **Bs.c Electrical and Electronics Engineering**

Tel Aviv University (GPA: 83) Aug 2016 - Jul 2022

 Graduation Project: Detection and Label of crimes on surveillance video footages (Pytorch, CNN)

## **Contact**

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#### **Personal Website**

jaeseongkim.com

#### Linkedin

https://www.linkedin.com/in/jaeseong-kim/

#### Skills

#### **Technical Skills**

- Image Processing, Computer Vision, Deep Learning with OpenCV, Pytorch
- Programming:
  Python, MATLAB, C/C++
- Tools/Software: IMTATEST

#### Languages

- Korean (Native)
- Chinese (Native)
- English (Native)
- Hebrew (Beginner)

#### **Certification/Short Courses**

- Oracle Certified Professional, JAVA SE 6 Programmer
- Deep Learning Specialization (by Andrew Ng, deeplearning.ai)

#### **Additional Information**

- Military Service in Korea (Oct 2017 - Jun 2019), served in United States Army base in Korea.
- Multicultural background with experience living in Korea, China (11yrs), and Israel (6.5yrs).