Ahron Tzvi Verschleisser

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Education

- **Master of Science in Biomedical Engineering** (2024) 89.8%
  Technion - Israel Institute of Technology: Haifa, Israel
  Thesis under supervision of Prof. Dan Adam: 90% "*Begetting B-lines: On the Involvement of the Pleural Membrane in the Physiological Origin of the B-line Artifact*"
- **Bachelor of Science in Bioengineering** (2020)
  University of Maryland: College Park, MD
  Minor: Spanish Language, Culture, and Professional Contexts

Technical Skills

- Programming: Python, HTML, CSS, JavaScript, VBA, MATLAB, LabVIEW, Git, C++
- 3D modeling: Onshape, PTC Creo, ANSYS LS-Dyna
- Data Techniques: Signal Processing, Machine Learning, Big Data Analytics, Image Processing

Experience

- **Clinical Trial Enrollment Program Developer** (2021-2022)
  UT Southwestern Dept. of Int. Med: Dallas, TX
  - Developed VBA-based program to track enrollees across twelve clinical trials
  - Implemented database protections and improved patient record alignment
- **COVID Testing Lab Assistant** (2020-2021)
  ResourcePath: Sterling, VA
  - Administered PCR tests, aiding Public Health initiatives while ensuring patient data privacy
  - Reduced error rate in records using Python and OCR to automate and validate

Projects

- **Anki Language Deck Development** (2024) (Personal)
  - Developed and shared engaging open-source language learning resources
  - Optimized for ***cross-platform display*** on mobile and desktop
- **Respiration and Heart Rate Analysis System** (2023) (Technion)
  - Engineered a ***LabVIEW*** system to collect and extract vital sign features of ***PPG&ECG***
  - Classified cardiac rhythms and characterized post-exercise recovery curves
- **AI-based Sleep Stage Identification** (2022) (Technion)
  - Trained a Deep Learning model for sleep stage classification of ***EEG DICOM*** files
  - Developed a segmentation algorithm to leverage various databases for training
- **Expanding Cannula Design** (2020) (University of Maryland)
  - Met design safety requirements set for the project and mandated by legislation
  - Modeled in ***Onshape*** and physically prototyped a Nitinol expansion mechanism

Languages

English: Native | Spanish: Fluent | Hebrew: Literate | Portuguese: Intermediate