Daniel Butael

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EDUCATION

University of Michigan, Ann Arbor MI   **Sept 2017 - May 2021**
- **B.S.E in Computer Science, GPA: 3.11**
- **University of Michigan Track and Field Varsity Team**

PROJECTS

Piazza Post Classifier   **June 2018**
- Created a Machine Learning program that classifies Piazza (Q&A website) posts by topics.
- Trained the "NLP Classifier" model using log-prior probability scores with CSV files.
- In the execution stage, the program receives a content and labels it. This is done by traversing through the binary tree, identifying unique words in the content, and matching it to the right label.
- Achieved an accuracy of 87.0% for 2000 posts.

Image Resizing Algorithm   **May 2018**
- Developed a program that resizes an image to a requested resolution without damaging the proportions.
- The program receives an image in a PPM format, and identifies each pixel with a weight according to how much it is "important" to the overall picture.
- Implemented the "seam algorithm" that correctly calculates and identifies the "important" pixels.
- The program removes or adds the seam of pixels with the least total weight.

Arduino Micro Arcade   **December 2017**
- Created a Mario-like game using Arduino Uno and a 16x32 pixel LED board.
- The player is displayed as a cube of 2x2 pixels, and uses a tiny remote control in order to move around.
- Designed an extensive structure of different classes used for each game component.
- Won the EECS 183 Computer Showcase.

EXPERIENCE

Israel Defense Forces, Intelligence Corps - Designated Technology NCO   **Jan 2013 - Jan 2016**
- Three-year service in the Israeli intelligence corps - "**Modi'in**".
- Responsibility for classified technology designated for military operations.

Math and Physics Tutor   **June 2011 - Apr 2016**
- Taught math and physics to middle school and high school students. Up to 7 students every week.
- Refined and conveyed concepts in a thorough, simple way.

"Morasha" Elementary School - Homeroom Teacher   **March 2016 - Apr 2016**
- Substitute homeroom teacher of a 6th grade class in Petah Tikva, Israel.
- Created a study plan, and came prepared for each class knowing what to cover.
- Checking homework, conducting quizzes, and dealing with discipline incidents.

SKILLS

- **Programming -** C++, Python, MATLAB, Java, Arduino.
- **Selected Coursework -** Data Structures & Algorithms (EECS 281), Discrete Math (EECS 203) , Introduction to Computer Organization (EECS 370), Programming & Introduction to Data Structures (EECS 280).
- **Languages -** English (fluent), Hebrew (fluent), Japanese (intermediate).

HONORS & ACHIEVEMENTS

- **EECS 183 Computer Showcase Winner**
- **Israeli Junior Triple Jump Record Holder**
- **Israeli National Champion in Long Jump 2014**