Rachel D. Frenkel

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EDUCATION

University of Michigan; College of Engineering   Expected Graduation: May 2020
Computer Science and Engineering   Ann Arbor, MI
- 3.260 GPA

EXPERIENCE

Material Science Research Assistant   July 2018 to August 2018
University of Michigan and Technical University of Berlin; Berlin, Germany
- Created g-code files to produce test samples with a PYOT 3D-printer using PETG and a Charpy Test to test hardness.
- Used both CAD and Slic3r to create files for the 3D-printer.
- Analyzed how various infill percentages of a 3D-printed specimen, using a honeycomb infill, would affect the hardness of the material.

Distribution Assistant   March 2017 to June 2017
Maddin Hauser; Southfield, MI
- Assisted multiple teams in different business functions by coordinating data exchange.
- Improved existing filing system to a paperless solution.

Senior Counselor   May 2015 to August 2017
Tamarack Camps, Camp Maas; Bloomfield Township, MI
- Oversaw the care of 30-60 campers with a special focus on those mentally and physically handicapped.
- Planned and directed group programs involving both co-staff and campers with sizes ranging from small group to large group activities.

PROJECTS

Euchre Card Game Simulation
- Created two versions, a human player using output from the terminal and a simple player with a programmed method of playing.
- Simulated up to four players and a mix of human and simple players.

Dictionary Searching Tool
- Took in a list of words, this application could take two words and change one word into the other in a series of steps.
- Altered by changing a letter, swapping, dropping, or adding a letter and tracking the number of changes determined by the mode, stack or queue, indicated by the user.

Traveling Zookeeper
- Coded three ways of assessing distance, MST, a nearest neighbor approximation, and an optimal path.
- Used a branch and bound algorithm to speed up the time of the optimal solution.

Personal Budget Planner
- Helped balance the dollar amount spent on different items, broken up into categories such as food, services, needs, etc.
- Calculated the total spent at any time, and gives the breakdown of the amount spent and the amount left for the month.

SKILLS

- Experienced in 3D-printing.
- Experienced in iPython Notebook, vPython, and MatLab.
- Proficient in C++.
- Experience with conducting large group programs and discussions.

ACTIVITIES

Member of the University of Michigan Hillel
- Worked on phone to campaign to fundraise for the organization on campus.
- Attended weekly Shabbat dinners and other cultural activities, even inspired committees and schoolwide events.

Theta Tau (Professional Engineering Fraternity)
- Corresponding Secretary on Executive Board
  - Coordinated with 12 chapters within the Great Lakes Region to create a conference to help over 100 engineers better their community and opportunities after college.
  - Contacted alumni to solidify ties in our network and keep fellow members involved.
- Marketing Chair
  - Managed social media platforms, created flyers, and developed events to promote the organization as well as companies affiliated with it, increasing the public outreach by 150%.
  - Designed and managed distribution of apparel throughout the organization as well as other chapters.