Rachel D. Frenkel

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EDUCATION

**University of Michigan;** College of EngineeringAnn Arbor, MI

Computer Science and Engineering *Expected Graduation: May 2020*

* 3.260 GPA

EXPERIENCE

**Fundraising Caller** *June 2018 to Present*

University of Michigan Hillel; Ann Arbor, MI

* Called over +500 people over 5 weeks, helping fundraise over +$3000 for the organization.
* Helped meet the University’s goal for the fiscal year; money going towards 25% of Hillel’s total funds for student funded clubs and events.

**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, processing data twice as fast as the original solution.

PROJECTS

**Euchre Card Game Simulation**

* Created two versions, a human player using input 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, saving an average of $75 a 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

**Michigan Hackers**

* Attended weekly hack nights, working with students on homework, career advice, and side projects.

**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.