Nadav Oren

Email: nadav@orenmail.com
Portfolio: nadavoren.github.io
Mobile: 202-329-6230
LinkedIn: https://www.linkedin.com/in/nadav-oren-2a75311a9/

Education

- **University of Michigan** — Ann Arbor, Michigan
  BSE Computer Science and BS Mathematics; GPA: 3.874 — *August 2020 - May 2024*
  Courses Taken: *Computer Organization, Data Structures and Algorithms, Theoretical Computer Science, Mathematical Statistics, Intro Real Analysis, Intro Probability, Linear Algebra, Calculus I-III, Physics (Mechanics and E/M)*
  Courses Expected to take this academic year: *Machine Learning, Computer Security, Differential Equations, Computer Networks, Probability Theory, Intro Modern Algebra*

Skills

- **Languages**: C++/C, Python, Java, Javascript, SQL, R, VBA, MATLAB, Mathematica
- **Frameworks/Tools/Platforms**: Linux, Git, Docker, mySQL, Oracle SQL Developer, React, Numpy, Pandas, scikit-learn, Mulesoft, ReadyAPI, NewRelic, JMS
- **Foreign Languages**: Hebrew (Fluent/Native Speaker)

Experience

- **Allegis Group** — Hannover, MD
  Intern-Data Integration — *Summer 2022*
  - Helped develop and conduct automated testing on REST APIs to integrate business applications using Mulesoft, ReadyAPI, Orcale SQL Devloper, NewRelic as part of an Agile team
  - Learned about Distributed Computing, Microservices, Middleware/Messaging and Automated Testing
- **LTN Global Communications** — Columbia, MD
  Software Developer Intern — *Summer 2021*
  - Helped create,debug,and test a customer-facing web portal in React as well its the gRPC and REST based API
  - Learned about web networking technologies and architecture, developing software on remote Linux-based servers, and databases

Projects

- **Reddit Comment Sentiment Classifier(2022)**: Developed a Machine Learning model to classify positive and negative sentiments of Reddit comments. Created functions for feature extraction with a Bag Of Words model while removing stop words and performing lemmatization. Tried several different scikit-learn support vector machine models while choosing hyperparameters with cross-validation. Measured and analyzed performance of model using several different performance metrics.
- **TSP Solver (2021)** : Created a command-line program that given a list of coordinates would give both an apporximate and correct (for small sets of coordainates) Traveling Salesman Problem solution for them. The approximation was using the nearest insertion heuristic and the real solution was using a Branch and Bound algorithm using a Minimal Spanning Tree
- **Cache Simulator (2022)**: Developed a simulator in C for a processor cache with flexible associativity,number of sets, and block size parameters for the LC-2K instruction set
- **Pipelined Processor Simulator (2022)** : Produced a simulator in C for a five-stage pipelined processor for a simple instruction set that included data forwarding to resolve control hazards and predict not taken for branches
- **Log Manager (2021)**: Wrote a Command-line Program in C++ that can manage and make queries on log files. The program could find and sort entries by keyword, category, and timestamp and store and print all relevant entries
- **Construction of Real Numbers using Dedekind Cuts (2022)**: For a final project in my Analysis class my group did a complete construction of the Real Numbers from the Rational Numbers using the Dedekind Cuts technique

Honors and Awards

- Member of IEEE Eta Kappa Nu Honor Society (University of Michigan chapter)
- Recieved University Honors and Dean's List for all semesters so far at UofM