

Ray Li

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EDUCATION

University of Pennsylvania, Philadelphia, PA

Expected May 2022

Master of Science in Engineering in Computer and Information Science

GPA: 4.0/4.0

Haverford College, Haverford, PA

Expected May 2021

Bachelor of Science in Computer Science

GPA: 3.86/4.0

Coursework: Algorithms, Machine Learning, Math Modeling in Finance, Data Structures, Probability

EXPERIENCE

Software Engineering Intern

Tripli ([Link](#)), Boston, Massachusetts

May 2020 – August 2020

- Developed a pipeline to find, select, and recommend subscribers flight deals and increased user engagement by 15%.
- Saved 96% server cost by designing automated deal-finding scripts on AWS Serverless framework.
- Created ETL scripts to process and analyze over ten thousand deals data entries per day with MySQL and MongoDB.
- Designed internal APIs with Django REST on AWS server to display deals for Angular frontend pages.
- Brought over 100 Daily Active Users by delivering a trip planning MVP with marketing and UX research teams.

Machine Learning Research Assistant

Haverford College Dark Reactions Lab ([Link](#)), Haverford, PA

May 2019 – Current

- Automated scientific discoveries by applying machine learning in hypothesis generation and results interpretation.
- Designed a recommender to generate hypothesis about successful chemical reaction compounds and conditions.
- Achieved 80% accuracy with recommender and expedited material discoveries for over 7 labs across the country.
- Conducted thesis research on post-hoc, model-agnostic interpretability methods (SHAP) of machine learning model.
- Proposed new applications of interpretability methods in advancing human knowledge of chemical reactions.

PROJECTS

Automated Course Calendaring Chrome Extension ([Link](#))

May 2019 – Present

- Developed a Chrome extension for students to streamline course schedule management. It automatically parses course information into recurring Google calendar events.
- Successfully pitched the extension to college admins, with plans to officially roll out the tool to over 3,000 students.

Go Go Music - Music Recommender Based on Visual Vibe ([Link](#))

Sep 2019

- Created an Android application to play the most fitting music based on live feed captured by camera using Google Cloud, Vision API and Spotify API in Android Studio. The project won 4th Place at *HackNY* hackathon.

AWARDS & SKILLS

1st Place, Haverford College Pumpkin Carving Competition

Oct 2019

Bronze Award, Singapore Mathematics Olympics

Jun 2016

Languages: Cantonese (Native), English (Fluent), Italian (Beginner), French (Intermediate), Mandarin (Native)

Skills: Python, C++, MATLAB, SQL, Java, JavaScript, NumPy, Django, Nginx, Linux, Amazon Web Service