Ray Li

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EDUCATION

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 implementing efficient deal-finding algorithms on AWS Serverless framework.
- Created scripts for large-scale data ETL with MySQL and MongoDB and processed over 10000 deals entries per run.
- Designed and optimized internal APIs with Django REST on AWS server to display deals for Angular frontend page.
- Led development of an automated trip planning MVP with marketing and UX team, bringing over 100 daily users.

Machine Learning Research Assistant
Haverford College Dark Reactions Lab ([Link](#)), Haverford, PA   March 2019 – Current
- Predicted product formation in chemical syntheses by implementing machine learning models in *Nature*.
- Designed a recommender to suggest the most informative and likely successful reactions for scientist. Integrated the recommender on a Django website and helped over 7 labs discover new compounds more efficiently.
- Improved the interpretability and trust-worthiness of machine learning models by investigating methods to quantify uncertainties in Shapley-value-based explanations.
- Proposed new applications of interpretability methods to advance understanding of chemical experiments.

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.

AWARDS

HackNY Hackathon, 4th Place   Sep 2019
Bronze Award, Singapore Mathematics Olympics   Jun 2016
Senior-Middle 1 Scholarship, 4-year full scholarship for studies in Singapore   2014-2018

SKILLS

Languages: Cantonese (Native), English (Fluent), Italian (Beginner), French (Intermediate), Mandarin (Native)
Skills: Python, C++, MATLAB, Java, JavaScript, NumPy, Django, Nginx, Linux, Amazon Web Service