

## Education

Washington University in St. Louis, MO

Aug 2019 – Present

### Declared Program:

- Bachelor's/Master's in Computer Science
- Second Major in Mathematics

- GPA: 3.99 / 4.0
- Credits Earned: 146 / 150

### Notable Courses

- **Computer Science:** (Graduate) *Machine Learning*, (Graduate) *Theoretical Artificial Intelligence*, *Nonlinear Optimization*, *Bayesian Optimization*, *Quantum Computing*, *Algorithm Analysis*, *Frontend / Backend*, *Objective Oriented*, *Computer Systems*,
- **Mathematics:** (Graduate) *Algebra*, (Graduate) *Complex Analysis*, *Topology*, *Measure Theory*, *Lie Groups*, *Statistics & Probability*

## Skills and Proficiency

**Natural Languages:** Native speaker of *Chinese*; proficient in *English*

**Programming Languages:** proficient in *C++*, *Python*, *Java*, *JavaScript*, *html*, *R*, *Matlab*, *LaTeX*, *Assembly*

**Libraries / Frameworks:** proficient *NumPy*, *PyTorch*, *Qiskit*, *Mosek*, *Sedumi*

## Employment

Software Engineer Intern, Google, Mountain View

May 2022 – Aug 2022

- Worked on a team under AdsAI that adopted user journey models for better advertisement suggestions
- Designed new fields and conducted protocol buffer changes for annotating user tasks and journey
- Implemented pipeline to annotate notes on a Hierarchical Agglomerative Clustering graph
- Evaluated the pipeline and analyzed the effectiveness of the implemented change

Engineering Teaching Assistant & Engineering Tutor

Jan 2020 – Present

## Personal Project

Leading Developer & Founding Member, Wall Street Connect ([www.wallstreetconnect.org](http://www.wallstreetconnect.org))

Feb 2021 – Present

- Proposed a service that helps job applicants network via email automation
- Constructed a LinkedIn scraper using python Selenium that collected over 100,000 public profiles
- Integrated dynamic Javascript UI from Wix with backend Apache server from AWS EC2

Full-stack Developer & Founding Member, Indream Online Recruitment Platform

Jun 2020 – Nov 2020

- Designed and implemented an interview-based application with a recommendation system that matches recruiters and student users with maximal suitability, and connects student users with similarity
- Maintained NoSQL databases, Javascript APIs, and html frontend UI under the WeChat Miniapp framework
- The project continued as Peer with 10,000 active users and \$200,000 in angel round funding by September 2021

Developer, Jiangsu WebAce Innovation Center ([www.webace-i3c.com](http://www.webace-i3c.com))

Jul 2019 – Aug 2019

- Gathered data and trained a naïve Bayes classifier and a random forest to classify verbal queries about movie information that are managed in a neo4j knowledge graph database
- Developed higher level voice detection and query processing APIs on NAO robots using python and Baidu cloud service
- Synthesized a system for detecting and answering voice inquiries for further real-world usage

## Research Experience

Machine Learning Research at Washington University

Jun 2020 – Present

- Developed a machine learning algorithm for shape segmentation using polynomial invariants learning
- Proved the correctness of the algorithm within the sum-of-square framework under the supervision of Dr. Brendan Juba

Freiwald Scholarships Program at Washington University, Mathematics Department

Feb 2021 – Aug 2021

- Utilized abstract algebra and representation theory to research the algebraic invariant theory of polynomial coefficients
- Simplified and improved the online learning framework in the aforementioned shape segmentation problem

## Clubs and Extracurriculars

Executive & Competitive Programming Coach, WUSTL Association of Computing Machinery

Sep 2019 – Present

- Qualified top 3 for WUSTL ICPC team, finished top 12 (2019) and top 7 (2020) in Mid-Central Programming Contest
- Held weekly competitive programming training seminars and managed repository for more than 10 students
- Organized recruiting events and Coding Jams for students on campus

Athlete, WUSTL Table Tennis Club

Sep 2019 – Present

- Trained twice a week on competitive table tennis skills and techniques
- Participated in the Divisional Competition held by National Collegiate Table Tennis Association

## Honors and Awards

Valedictorian, Washington University Class of 2022

2022

Dean's List, McKelvey School of Engineering (WUSTL)

2020, 2021, 2022

Lifetime Member, Tau Beta Pi Engineering Honor Society

2021

Top 6 (out of 80), Mid-Central USA Regional Programming Contest

2022

Top 150 (out of 3000), William Lowell Putnam Mathematical Competition

2021