

# SARAH TRAN

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## EDUCATION

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### Duke University

*Bachelor of Science in Computer Science | Minor in Math*

**August 2023 – May 2027**

Durham, NC

**GPA:** 4.00/4.00

**Relevant Coursework:** Data Visualization, Data Structures/Algorithms, Discrete Math, Advanced Linear Algebra

**Organizations:** Delta Sigma Pi Business Fraternity, Quad Council Academic Chair

### McLean High School

**August 2019 – June 2023**

**GPA:** 4.55/4.00

McLean, VA

**College Coursework:** Discrete Structures and Computer Architecture, Linear Algebra and Multivariable Calculus

**Honors:** Girls Who Code, Varsity Tennis Captain, Speech Team Captain, National Spanish Exam Gold Medalist

## PROFESSIONAL EXPERIENCE

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### Duke University

*Teaching Assistance – Introduction to Economics*

**August 2024– Present**

Durham, NC

- Leading discussion sections, grading homework, holding office hours

### MITRE

*Software Engineering Intern*

**May 2024– Present**

McLean, VA

- Optimization and evaluation of Google Augmented Reality Microscope (ARM) through development of deep learning and computer vision models on lymph node cancer slides
- Designed models to detect signet ring cells and subtle blur to mitigate risks of out-of-domain information and blurred input
- Evaluating of DoD's emerging JATIC toolkit for AI Testing and evaluation.

## EXTRACURRICULAR INVOLVEMENT

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### McLean Community Center

*Board Member*

**June 2022 – June 2023**

McLean, VA

- Managed 9 million dollar budget within the finance committee and portioned budgets for next five years
- Founded a youth board that increased participation by over 200 percent
- Organized future election processes to be less combative with more specific rules

### VietCorps

*Founder/Director of Education*

**August 2021 – June 2024**

McLean, VA

- Facilitated both in-person and virtual training for the IELTS exam
- Founded VietCorps International Book Club to build and international community of young leaders
- Coordinated service trips to build libraries and computer rooms in orphanages in Vietnam

## PROJECTS

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- **Phishing URL Detector**
  - Leveraged the BERT NLP model and numerical statistics to achieve 97% accuracy in detecting phishing URLs
- **Street Sign Identification with Artificial Intelligence:**
  - Implemented python and Tensorflow/Keras libraries to train a model on a dataset to identify street signs
- **Natural Language Processing Model Search Engine:**
  - Used python and the Natural Language Toolkit library to mimic a search engine by understanding user-inputted questions and providing an answer formed from a collection of articles
- **Autocomplete Search Engine Model**
  - Programmed a model search engine in java that utilized java data structures to weight and sort possible search phrases based on the user-inputted prefix

## SKILLS & INTERESTS

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- **Skills:** R Studio, Java, Python, SQLite, LaTeX, MS Excel, MS PowerPoint, C, Adobe Audition, Adobe Photoshop, electric guitar, house flipping
- **Awards:** CSGA AIM Engineering Competition Winner, 3<sup>rd</sup> place MITRE AI Hackathon