# **SOPHIE SHAO**

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#### **EDUCATION**

Brown University Providence, RI

Candidate for B.S. in Applied Math - Computer Science, GPA: 3.85/4.0

Exp. May 2027

Coursework: Computer Science: An Integrated Introduction, Program Design with Data Structures and Algorithms, Intro to Computer Systems, Computer Vision, Statistical Inference I, Multivariable Calculus, Linear Algebra, Macroeconomics

#### WORK EXPERIENCE

#### **Brown Office of University Communications**

Web and Digital Assistant

Sept 2024 - Present

- Collaborate on the creation of office and departmental websites using content management system Drupal, including the selection of design components and layout options to align with the needs of various web pages
- Own content migration between web content management systems while ensuring a seamless user experience

**Dchained Capital**June 2024 - Aug 2024

Research Intern

- Developed Python scripts using Playwright and BeautifulSoup to collect datasets with 10,000+ individual attributes on investors in the Digital Asset Space
- Built an Excel database identifying 2,000+ high-potential leads by spearheading the aggregation of market research on potential investors in the Crypto and Blockchain markets, simplifying outreach capabilities

#### **Pittsburgh Chinese Cultural Center**

2023 - Present

Webmaster

- Maintain and update the WordPress website, creating engaging blog posts and custom layouts to highlight events
- Improve site performance, accessibility, and mobile engagement by designing and developing responsive web interfaces using HTML, CSS, and Bootstrap

#### **LEADERSHIP & ACTIVITIES**

#### Brown University Varsity Swimming, High School Varsity and Club Swimming

2019 - Present

- Two-time Pennsylvania State Champion, high school Hall of Fame and Senior Captain, four-time All-American
- Junior National Championship Finalist

Brown Motion Pictures Sept 2024 - Present

Tech Coordinator

- Organize the technological equipment and elements of the production cycle, including managing inventory
- Train crew members through hands-on workshops on using film equipment, including cameras, lighting, sound, and editing software, ensuring they can effectively operate gear during shoots and post-production

## **Brown University Women in Computer Science Club**

Sept 2023 - Present

Member

 Facilitate and participate in panels, socials, and networking events focused on supporting women in computer science and encouraging those who are interested in careers in tech

## **PROJECTS**

### Depth-Based Portrait Mode Filter | Computer Vision Final Project

- Developed a deep learning pipeline to estimate depth from single images using Convolutional Neural Networks
- Implemented the model in Python with libraries such as PyTorch and OpenCV to dynamically blur image backgrounds while sharpening the foregrounds
- Optimized neural network architectures and hyperparameters, resulting in improved depth estimation accuracy by 90% and smooth background segmentation

## **SKILLS**

Languages: C/C++, Python, Java, Javascript, Assembly

Technologies: Excel, Drupal, WordPress, Linux, Docker, Latex