# Sarah Luo

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#### **EDUCATION**

## **Purdue University,** B.S. Computer Science, 3.94/4.00 GPA

West Lafayette, IN | Expected Graduation May 2025

• Relevant Courses: Data Structures and Algorithms, Computer Architecture, Discrete Mathematics, Programming in C, Introduction to Object-Oriented Programming, Linear Algebra, Multivariable Calculus

#### **SKILLS & TECHNICAL TOOLS**

Languages: Java, C/C++, Python, JavaScript, Typescript, HTML/CSS, Dart, R

Technologies: Git, ReactJS, Flutter, NodeJS, Vim, Jupyter Notebook/Google Colab, Blender

## **EXPERIENCE**

## **UCSD ProtoLab**, Research Intern – Software Development Team

San Diego, CA | May 2023 – Present

- Implemented a visual support tool using Python to provide scaffolding in novice design tasks
- Conducted both formative and summative studies to gather user feedback and iterate on an user-centric tool
- Utilized OpenCV to autonomously identify visual design discrepancies, while using Python to generate automated annotations on the server side, enhancing the tool's efficiency by 21%
- Leveraged Typescript and React to build intuitive and responsive user interfaces

# Google Developer Student Club, President

West Lafayette, IN | Jan 2023 - Present

- Developed weekly in-person workshops demonstrating Flutter widgets and Dart API packages for students
- Coordinated group projects for mobile app development in Android and iOS platforms by teaching Git Actions and backend Google developer technologies such as Firebase

## **UCSD Jacobs School of Engineering,** Research Intern

San Diego, CA | June 2021 – June 2022

- Utilized Virtual Reality technology to help those with Autism Spectrum Disorder develop interview skills
- Created 3D head models and animations with Blender to use in Unity for the Virtual Reality job interviews
- Co-authored research paper on measuring social modulation of gaze in Autism Spectrum condition with VR interviews

# **NexStream Technical Institute,** Software Engineering Intern

San Diego, CA | May 2021 – Aug 2022

- Directed an Introduction to Machine Learning curriculum with hands-on projects utilizing Python to support learning
- Facilitated learning by creating a webpage for course presentations and producing videos on various Machine
  Learning topics such as optimization and hyper-parameters aimed toward middle school students

# PERSONAL PROJECTS

#### Rate My Apartment, Flutter, Dart

March 2023

- Developed a product backlog to ensure a functional UI that displays apartments surrounding Purdue University
- Created a navigation bar and search bar widget that allows users to discover available apartments while accessing review pages and apartment information

#### **Wordle,** *JavaScript, React, HTML/CSS*

February 2023

- Utilized JavaScript to recreate the game Wordle and manage the game's state with scores updated in real-time
- Leveraged React components to create a dynamic user interface and widgets that effectively display webpage content

# J-Marketplace, Java December 2022

- Led the development of a marketplace project using Java, incorporating network I/O, GUI, and concurrency features
- Implemented a client-server architecture utilizing JOptionPane for GUI windows that support threads