

# KAIWEN SHEN

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<https://github.com/k-shen>

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[www.kaiwenshen.com](http://www.kaiwenshen.com)

## SKILLS

- Java, C, Python, MATLAB, javascript, Swift, HTML/CSS, C++, LTSpice
- Data structure and algorithms, OOP, data analysis, machine learning, circuit analysis
- Fluent in English and Chinese
- Communication, intercultural, teaming, problem solving, public speaking, time management

## EDUCATION

### Purdue University, West Lafayette

May 2022 (Expected)

- B.S. Computer Engineering, Minor in Mathematics and Economics, GPA: 3.99, Honors College
- Eta Kappa Nu: the honor society of IEEE
- Awards: Dean's List & Semester Honors (Fall 2018, Spring 2019, Fall 2019, Spring 2020)
- Study Abroad: Dublin, Ireland - May 2019
- Learning Community: Purdue University Global Engineering - Fall 2018

## EXPERIENCE

### Purdue University Teaching Assistant

- ECE 36800 (Data Structure) Aug 2020 - PRESENT
- ECE 26400 (Advanced C Programming) Jan 2020 - May 2020
  - Supervise and tutor 200+ students
  - Work closely with professors and faculty members to ensure optimal student success in the course.

### Data Analytics for Cancer Diversity and Correlation (DURI program extension)

Jan 2020 - PRESENT

- Interdisciplinary research project to develop a model for identifying cancer subtype using TCGA clinical and molecular data.
- Develop a multi-view co-clustering model to integrate data from different platforms and identify molecular clusters through model interpretation.

### Vehicle Re-Identification: A Clustering Approach (SURF program extension)

May 2020 - PRESENT

- Computer vision/data analysis research project to identify target vehicle within a system of video cameras.
- Create of a new query processing engine in vehicle reidentification utilizing a clustering approach with CityFlow dataset.

## PERSONAL PROJECTS

### Clothes Choice - <http://www.kaiwenshen.com/clotheschoice/>

Aug 2019 - PRESENT

- Retrieve weather data of specific cities (user input) using python APIs then present to users what types of clothes to wear in order to stay warm/cool. Currently implemented as a website, In progress to implement iOS Swift version of the program.

### NBA Prediction - [https://github.com/k-shen/NBA\\_pred](https://github.com/k-shen/NBA_pred)

Jun 2020 - PRESENT

- Create a growable NBA dataset using different types of team data and game records from NBA.com.
- Utilize Keras Sequential Neural Network and Ridge regression models to predict game result and score.

## LEADERSHIP

### Purdue Student Engineering Foundation (<https://engineering.purdue.edu/PSEF/>) - Member

Feb 2020 - PRESENT

- Lead engineering campus tour for prospective students and family.
- Facilitate outreach events for high school students to engage interest in the engineering field.
- Help maintain/create pages of the website.

### Purdue Honors College Global House - Mentor

Jul 2020 - PRESENT

- Transnational community within the Honors College with focus on cultural inclusion.

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- Provide mentorship and leadership to other first year/continuing domestic/international honors students, especially under the pandemic situation.

## **Purdue University Association for Computing Machinery** - *Member*

**Aug 2018 - PRESENT**

- SIG AI: Formulate generic multivariate linear regression model to solve machine learning questions.
- SIG AI: Develop primitive algorithm utilizing tensorflow and visual sensor to train machine to peel fruit.
- SIG APP: Create original android based projects for certain university futures such as laundry and safewalk using Flutter.

## **Purdue University Dance Marathon (PUDM)** - *Committee Member*

**Mar 2019 - Mar 2020**

- Facilitate event for PUDM with over 100 participants and fundraise for Riley Children's Hospital.