

Simon Zeng

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EDUCATION

Johns Hopkins University, Baltimore MD May 2020
Bloomberg Scholar (\$19000 over 4 years)
Majors: Computer Science, Cognitive Science | *Minor:* Applied Mathematics and Statistics
Focus: Natural Language Processing | *GPA/Major GPA:* 3.21/3.14

TECHNICAL SKILLS

Proficient in Java, C, Python (including TensorFlow and Keras), Lambda Notebook
Familiar with C++, MATLAB, Android/Web Development Tools/Frameworks:
Frontend: Javascript (FW: Angular, React) | *Backend:* SQL, Node.js, PHP

PROFESSIONAL EXPERIENCE

Independent Research Project | Johns Hopkins University | Baltimore MD Aug 2018 - Present
Advisor: Dr. Charbel Rizk | *Sponsor:* Textron Systems

- Investigating the usage of hyperspectral imaging in non-invasive food allergen detection to create a commercially viable product
- Developing a pixel-by-pixel detection algorithm using machine learning and deep learning techniques to take an image of a food product and determine the presence and amount of certain food allergens in a timely manner

Software Development Intern | Bloomberg School of Public Health | Baltimore MD May 2018 – Aug 2018

- Created tools (Python, ASP, ASP.NET) utilized in the maintenance and analysis of the Epidemiology Dept's clinical and personnel data to increase efficiency both in terms of intradepartmental communication and attaining clinical results
- Worked on transitioning the department's online forms and database resources to support Chrome usage
- Proposed for department to build and use a progressive web app in order to minimize data entry and improve client accessibility to obtain more accurate and reliable results

Marketing Intern | Bon Appétit Management Company | Baltimore MD Sep 2017 – Dec 2017

- Worked with the Johns Hopkins Marketing Department to create events, promotions and services designed to improve dining accessibility and options for students and to raise cultural awareness
- Designed graphics for, publicized and participated in on-campus marketing/dining events
- Worked on the JHU dining website to provide more organizational transparency and accessibility to nutritional information

COMMUNITY INVOLVEMENT

Undergraduate Teaching Assistant | Johns Hopkins University | Baltimore MD Aug 2018 – Present
Courses: Intro Programming in Java, User Interfaces and Mobile Applications

- Supporting the courses through providing coursework feedback and reinforcing lecture material with students one on one.
- Acting as scrum master and mentor for various groups as they develop their own Android applications. Providing both UI/UX feedback and implementation guidance as necessary

Head of Family Volunteer | Thread | Baltimore MD Sep 2016 – Present

- Form sustaining relationships with underperforming high school students confronting significant barriers outside of the classroom to foster the students' academic advancement and personal growth
- Acting as an intermediary link between a group of five volunteers plus a student and upper management to find and access Baltimore-based resources to promote the student's success

PROJECTS

FoodLab | Android Mobile Application (Java) March 2018 – Present

- App that provides recipes, when given ingredients by the user, and provides an avenue for users to exchange tips and ratings on food dishes in an open forum environment. Utilizes the Spoonacular API.

Amazon Review Sentiment Analysis | Data Analysis/Machine Learning Project (Python) Jan 2019

- Analysis of Amazon reviews of Android Apps using Pandas and Matplotlib libraries. Includes a model with trained logistic regression (Sklearn library) to predict whether a given sentence has positive or negative connotations.

English Sentence Parser | Natural Language Processing Project (Python) Oct 2018

- Implementation of Earley algorithm to take in English sentences and grammars as input and return if they are proper sentences under the grammar and the best parse based on grammar weights.

EXTRACURRICULARS & OTHER INFORMATION

Extracurriculars: JHU Undergraduate Admissions (*PR Staff*), Chinese Student Association (*Culinary Chair*), Club Tennis, Association for Computing Machinery

Languages: Mandarin Chinese (Fluent), French (Limited Working Proficiency), Spanish (Limited Working Proficiency)

Interests: Preparing Sushi, NLP Research Blogging, Bartending, Cooking, Baking