Chenyi "Lisa" Zhu

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Education

Johns Hopkins University **Baltimore, MD**
Majors: *B.S. Computer Science, Applied Math (GPA 3.52)* *Expected May 2022*
Honors: *Dean's List, Malinow Fund ($4,000)*
Courses: *Algorithms, Object-Oriented Programming, Human Language Technology, Optimization, AI, Computer Systems, Probability, Statistics, Linear Algebra & Differential Equations*

Skills

Programming: Java, C/C++, Python, HTML/CSS, JavaScript, MATLAB, R, Assembly x86, SQL.
Software: Git, PyTorch, AWS, CAD, Bloomberg Terminal, Microsoft Office.
Certificate: BMC Certificate (Bloomberg LP, 6/2020).
Languages: Mandarin, English, French.

Research & Projects

Research: Neural Machine Translation **Baltimore, MD**
Student Researcher · Center for Language and Speech Processing *Aug 2020 ∼ Present*
Advisor: Dr. Philipp Koehn

- Synthesize parallel corpora to include previously unseen single-word terminologies to distribute relevant information on the global pandemic through the TICO-19 dataset for low-resource languages.
- Working to incorporate multi-word terms by generating efficient, order-sensitive embeddings with Python.

Design Team: GOOSE **Baltimore, MD**
Software Engineer · Department of Computer Science *Aug 2020 ∼ Dec 2020*

- Created **MyCooksApp**, a social network application to support local small businesses by connecting food trucks and potential customers; built mainly in Java following CI/CD and AGILE development principles.
- Integrated Google Maps JavaScript API with server endpoints allowing food trucks to see and update locations, and customers to rank food trucks with regard to relative distances in real time.

Design Team: EpiX **Baltimore, MD**
Engineering Lead · Center for Bioengineering Innovation and Design *Nov 2018 ∼ Present*

- Perform product research and design novel **extendable Tuohy needle** prototypes aimed to reduce patient and physician discomfort in current epidural procedures and to save $162 million/year for hospitals.
- Prototype with Fusion360 CAD software and perform finite element analysis (FEA) to test model's efficacy and usability.
- Collaborate with the School of Medicine and BD to optimize model for clinical and industrial settings.
- Applied and received Malinow Grant ($4,000) to fund project over summer of 2019 and to seek IRB approval.
- Presented product solution at American Society of Anesthesiologists' 2020 annual meeting.

Teaching Experience

Intermediate Programming **Baltimore, MD**
Course Assistant *Aug 2020 ∼ Present*

- TA for core computer science course in C and C++, chosen from a pool of over a hundred highly competitive candidates.
- Help students in class with coding practices, hold office hours, and grade assignments.

Electromagnetism **Baltimore, MD**
Learning Assistant *Jan 2020 ∼ May 2020*

- TA for Physics II, a core engineering course.
- Aided lecture delivery, taught Friday sections to help students solve additional problems, and held office hours weekly.
- Compiled notes on mathematical backgrounds of electromagnetism to consolidate understanding of course materials.

Leadership

First-year Mentoring Group **Baltimore, MD**
Junior Mentor *Aug 2020 ∼ Present*

- Support incoming freshmen through the COVID-19 pandemic and navigating an online college experience.
- Collaborate with faculty advisers to organize discussions regarding current issues/advances in computer science.

Global Medical Brigades **Tegucigalpa, Honduras**
Executive Board Member *Jan 2019 ∼ May 2020*

- Assisted three Honduran communities in building sanitation and clean water infrastructure.
- Headed donation drives with fellow volunteers to gather over 1,400 sanitation bundles to sponsor future brigades.