

Catherine (Kate) Spencer

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Education

Smith College 2022, Northampton, MA

Aug '18 - Present

Bachelor of Science in Engineering (Expected May 2022), Computer Science Minor, GPA 3.93/ 4.0

Tau Beta Kappa Engineering Honors Society: top 1/8th of Junior EGR Class; Dean's List 2019, 2020

Skills: Java, Python, C, HTML, JavaScript, CSS, AutoCAD, and Fusion360

Work Experience

Project: Precious Plastics Shredder Redesign, Smith College

Sep '20 – Present

- Collaborated remotely with an interdisciplinary team of three students to reimagine plastic waste
- Redesigned an open source plastic shredder to fit with key principles of portability and ease of use; fabrication will take place Spring 2021

Grubb Lab Software Engineering Research Student, Smith College

Jan '20 – Present

- Developing features for BloomingLeaf, a Goal Oriented Requirements Engineering tool that facilitates user's visualization and analysis of goal models
- Debugging tool front and back end in Java, JavaScript, HTML, and CSS
- Worked full time for summer 2020, growing skills in virtual work and communication
- Published and presented paper *Towards Evaluation Visualization with Color* at iStar Workshop of the Requirements Engineering Conference, September 2020

Computer Science 111 Teaching Assistant, Smith College

Sep '20 – Present

- Supported 100+ Introduction to Computer Science students through four weekly drop in hours
- Aided students in understanding course material in introductory Python through active listening and leading questions facilitating deeper understanding of material

Lawnmower Engine Teaching Assistant, Smith College

Jan '20 – Present

- Worked as a support for EGR 110, lead students in groups of 2-6 disassembling and reassembling lawnmower engines to gain confidence in tool use and better understanding of mass and energy flow

University of Washington: Clean Energy Bridge to Research, Seattle, WA

June – Aug '19

PI: Devin Mackenzie, Materials Science; Director of the Clean Energy Institute

- Selected as one of five Freshman Research Fellows for a month-long research program, initiated extended lab work for an additional month
- Developed new solution processing technique and ink for efficient thin film perovskite photovoltaic cells, then assisted with fabrication and characterization
- Analyzed data and past results to create hypotheses to determine future steps in lab

Leadership

House President, Smith College

Aug '20 – Present

- Developed and maintained welcoming remote community for 45 members of Parsons Residence House
- Lead bi-weekly house council meetings to plan house events and engage remote residents
- Engaged in weekly House Presidents Association meetings advocate for residents

Head of New Students, Smith College

Aug '19 – May '20

- Welcomed and mentored 21 incoming freshmen students in Parsons Residence House