

# Silvia Knappe

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## EDUCATION

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- **Massachusetts Institute of Technology (MIT)** **Cambridge, MA**
  - Candidate for BS in Electrical Engineering and Computer Science, GPA: 4.8/5.0 Expected June 2021
  - Candidate for MEng in Electrical Engineering and Computer Science June 2022
  - Relevant Coursework: Machine Vision, Robotics: Science and Systems, Intro to Machine Learning, Computer Systems Engineering, Algorithms, Interactive Music Systems, Signal Processing, Circuits

## RELEVANT EXPERIENCE

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- **Machine Learning Applications Team at Amazon Robotics** **Virtual/North Reading, MA**  
*Software Engineering Intern* June 2020 - August 2020
  - Designed and implemented a low-latency autofocus system using machine learning
  - Captured clear images of objects moving up to 2m/s by using liquid lens camera technology
- **Learning and Intelligent Systems Lab** **Cambridge, MA**  
*Undergraduate Researcher* September 2019 - May 2020
  - Researching Active Simultaneous Localization and Mapping implementations
  - SuperUROP scholar in the Advanced Undergraduate Research Opportunities Program
- **Women's Technology Program** **Cambridge, MA**  
*Residential Tutor* June 2019 - August 2019
  - Taught high school girls electrical engineering over the span of the 4-week program
  - Developed a lecture and lab for the students
  - Held office hours to help students with homework and labs
- **Research Internship at the Karlsruhe Institute of Technology** **Karlsruhe, Germany**  
*Summer Research Intern* June 2018 - August 2018
  - Participated in ongoing research project to use computer vision to assist the visually impaired
  - Improved the detection of surfaces by training neural networks to detect and classify objects

## WORK AND LEADERSHIP EXPERIENCE

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- **MIT Teaching Assistant** **Virtual/Cambridge, MA**  
*Teaching Assistant for Fundamentals of Programming (6.009)* January 2021 - Present
  - Facilitated office hours, in which assistance with lab assignments and other programming related concepts was provided, and lab assignments are evaluated
  - Assist in grading assessments, as well as developing and testing lab assignments and assessments
- **MIT Lab Assistant** **Cambridge, MA**  
*Lab Assistant for Fundamentals of Programming (6.009)* February – December 2020
  - Assisted and evaluated students with lab assignments and clarified programming concepts
  - Collaborated with staff to improve the course as well as to overcome significant teaching hurdles that the new virtual class format poses
- **MIT Lab Assistant** **Cambridge, MA**  
*Lab Assistant for Intro Signal Processing* September 2019 - December 2019
  - Assisted students during office hours with homework and lab assignments
  - Collaborate with professors, graduate teacher assistants, and other lab assistants to improve the course
- **MIT Project Manus Mentor** **Cambridge, MA**  
*Makerspace Mentor* October 2018 - Present
  - Train MIT students to use makerspace machines such as bandsaws, 3D printers, and laser cutters
  - Work together with adults in charge of the makerspace to foster a positive student maker community

## ACTIVITIES

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- **MIT Sport Taekwondo Team** September 2018 - Present
- **MIT Chamber Music Society** September 2017 – May 2020

## SKILLS

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- **Programming/Computer:** Python, Java, Proficient using Linux
- **Languages:** Fluent in German, Spanish, and English