**Hannah L. Gaertner**

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**Education**

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| **Northwestern University,** Evanston, Illinois |  |
| ***Master of Science:*** Computer Science*(GPA: 3.91/4.0)*  ***Bachelor of Science:*** Double major in Materials Science and Engineering & Classics *(GPA: 3.72/4.0)* | June 2020  March 2020 |
| **University of Illinois at Urbana-Champaign**, Urbana-Champaign, IL *(GPA: 4.00/4.0)* | 2015-2016 |
| James Scholar |  |

**Experience**

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| Student Researcher, Center for Scientific Studies in the Arts, Northwestern University, Evanston, IL   * Prepared layered microsamples and performed x-ray fluorescence analysis using tools SMAK, PyMCA, and DataImaging to identify pigment identity of materials used by French artist James Tissot * Used confocal microscopy to image pipes from colonial Ghana and performed x-ray diffraction analysis on organic residues to further cultural and historical studies of the region   Research Intern, Computational X-Ray Science Group, Argonne National Lab, Lemont, IL   * Analyzed phase formation during the additive manufacturing process for a series of aluminum alloys and developed an automated computational approach for extracting important phase information from X-ray images using Python and Keras * Created labeled training datasets for the convolutional neural network   Student Researcher, Rogers Lab, Materials Science, Northwestern University, Evanston, IL   * Participated in research to design, create, and test devices for diagnosing cystic fibrosis * Worked in Class 100 cleanroom specializing in photolithography; trained on tools including mask aligner, deep reactive ion-etching machine, and acid hood for creating masks and then molds for device construction * Optimized sweat collection and skin adhesion parameters while assembling devices   Student Researcher, Onel Lab, Biomedical Sciences, University of Chicago, Chicago, IL | Spring 2019  Summer 2018  2017-2018  Summer 2016 |
| * Wrote software programs in Python, Unix, and R to extract, sort, and analyze data from patient and gene databases to investigate correlations |  |

**Activities**

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| Northwestern Club Ultimate Frisbee, B Team Captain, Recruitment Committee   * Helped lead B team practices, managed logistics, worked with players individually, and planned team direction * Strategized recruitment and advertising; acted as a liaison for prospective players * Honed individual skills and practiced teamwork and communication while competing across the Midwest | 2016-present |
| Northwestern Peer Adviser and Orientation Leader   * Led and worked closely with assigned new student groups (11 – 15 students each) as they adjusted to Northwestern. Facilitated dialogues on pertinent topics during orientation and throughout the year. Special focus on new transfer students. | 2017-2019 |
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**Skills**

Java, C++, C#, Python, MATLAB, HTML, CSS, JavaScript, and R Proficient in Spanish and Latin