Elena **Swecker**

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Education

Carnegie Mellon University *Pittsburgh, PA*
Bachelor of Science in Computer Science *May 2022 - QPA 3.65*
Concentration in Computational Biology

Work Experience

Duolingo *Pittsburgh, PA*
Software Engineering Intern *May 2021 - Aug 2021*
- Worked with New Writing Systems team on improving learning experience for users in non-Latin script courses
- Developed web frontend using React/Redux for team's primary feature: guided lessons teaching learners a new writing system as well as an interactive chart of the characters which visualizes learner's progress (in use by thousands of learners daily)

Carnegie Mellon University, School of Computer Science *Pittsburgh, PA*
Fundamentals of Programming and Computer Science: Associate Head Teaching Assistant *Jan 2019 - May 2021*
- Managed 50 TAs and 500 students per semester; taught bi-weekly lectures (alternative for students in far time zones during pandemic)
- Provided input on course structure, content, policies, and design of quizzes, exams, and homework assignments
- Orchestrated a course-wide hackathon, Hack112, involving 200+ students by coordinating the activities of 10 subteams and 50 TA volunteers

Splunk *Remote Work*
Software Engineering Intern *May 2020 - Aug 2020*
- Worked with Metadata Catalog team on microservice of cloud native product that helps make sense of data managed/accessed by Splunk
- Researched/implemented ways to utilize automatic code generation to reduce overhead when adding new endpoints to microservice

Sandia National Laboratories *Livermore, CA*
Computational Biology R&D Intern *May 2019 - Aug 2019*
- Designed and implemented a fully automated pipeline in Python that collects and updates local genomes in an organized file structure
- Developed a suite of programs to compile tmRNA information into MySQL databases backing the Sandia bioinformatics website

Magee Womens Research Institute (MWRI) *Pittsburgh, PA*
Research Intern *Aug 2017 - May 2018*
- Spearheaded project to investigate mutations causing errors in spermatogenesis in *C. elegans*, under guidance of Dr. Judith Yanowitz
- Discussed research challenges/progress in weekly meetings with MWRI coworkers; ran MWRI booth at Pittsburgh's March for Science
- Organized and led hands-on activities with 7th grade class to share excitement about *C. elegans* and biology research

Projects

Co-Designing Effective Human-Algorithm Collaborations for Suicide Risk Assessment *Remote Work*
Research Project with CoALA Lab in CMU HCI Institute (Research Paper) *Spring 2021*
- Conducted interviews where individuals generated and evaluated new ideas for how clinical decision support systems should be designed

Alexa MD *Stanford, CA*
Submission at TreeHacks (Devpost) *Feb 2020*
- Developed back-end of symptom-disease relationships with Neo4j in our intelligent vocal assistant aimed at diagnosing medical conditions

ForeSight *Philadelphia, PA*
Top 10 Winner out of 251 Submissions at PennApps XX (Devpost) *Sept 2019*
- Implemented visual object detection with AWS SageMaker in a haptic feedback system to assist visual impaired individuals

Skills

Proficient: Python, C/C++, Typescript, React/Redux, MySQL *Basic*: Java, SML, Neo4j, AWS (SageMaker), Django, Javascript

Awards

National Merit PPG Foundation Community Scholarship May 2019
Westinghouse Women in Nuclear Scholarship Apr 2018
NCWIT Award for Aspirations in Computing Apr 2018