

Amelia Kratzer

650-656-1082 | akratzer@andrew.cmu.edu | www.linkedin.com/in/amelia-kratzer | https://github.com/ameliakratzer-code

EDUCATION

Carnegie Mellon University, Pittsburgh, PA

Aug 2023 - May 2027

- **Bachelor of Science: Information Systems, Minor: Artificial Intelligence (GPA: 3.91)**
- *Relevant Coursework:* Fundamentals of Programming (Python), Principles of Imperative Computation (C), Foundations of Software Engineering, Designing Human Centered Software, Matrix Algebra

Menlo-Atherton High School, Atherton, CA

Aug 2019 - May 2023

- *Activities:* President M-A Coding Club for Teens, President M-A Leo Club, Captain M-A Varsity Tennis

WORK EXPERIENCE

SOURCES Intern

Jun 2024 - Aug 2024

Statewide California Earthquake Center

- Built **2 neural networks using TensorFlow** to interpolate key earthquake data, including hazard curves and IM values, for 100 new sites
- **Implemented regularization and dropout techniques** to reduce overfitting and improve model's performance
- Used SQL and batch data processing to analyze data from 600,000 simulated earthquakes, discovering velocity trends that improved **interpolation accuracy by ~15%**

Computer Science Peer Tutor

Aug 2024 - Present

Student Academic Success Center, Carnegie Mellon University

- Conduct weekly 1-on-1 tutoring sessions for **20+ students** in **Fundamentals of Programming** and Physics
- Teach **data structures, object oriented programming**, recursion, and debugging in Python

PROJECTS AND LEADERSHIP EXPERIENCE

Amelia's Happy Paws, Pet Sitting Business

Mar 2015 - Present

- Built and scaled pet-sitting business, earning **\$30k in revenue** from **15 recurring clients**
- Developed professional website using HTML, CSS, and JavaScript, expanding customer reach

Society of Women Engineers, Collegiate to Career Member

Sept 2023 - Present

- Contributed to Community Engagement Committee by creating resource bags for STEM Day, benefiting **100+ local middle and high school students**

SIG HPC Virtual Chapter Outreach Committee

Dec 2020 - Sept 2023

Association for Computing Machinery

- Collaborated with Texas Advanced Computing Center staff to develop interactive materials for **High Performance Computing Conference SC21**, engaging 12,000 participants
- Wrote posts for Education Blog, boosting student engagement in High Performance Computing initiatives

TECHNICAL SKILLS

- *Programming and Development:* Python, C, HTML, CSS, SQL, TensorFlow, Scikit-learn
- *Tools and Frameworks:* Matplotlib, NumPy, GitHub