# The Unidata Summer Internship Program: Seven Years of Providing Students with Software Carpentry Skills

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The Unidata Summer Internship Program

The National Science Foundation has long sought to advance software development across all sectors of the scientific enterprise[1], most recently seen at the 2019 Mind the Gap workshop [2].

The Unidata Summer Internship program began in 2011 as a staff discussion on how to increase community participation in geoscience software development. Initial ideas revolved around a visitor program for faculty members, but a consensus quickly formed that there would be greater impact if we approached the idea with students at the forefront. Originally dubbed the *Unidata Summer of Code*, the initial announcement was made in March of 2012 [3]. Since then, with NSF support Unidata has hosted students for seven consecutive years of summer internships.
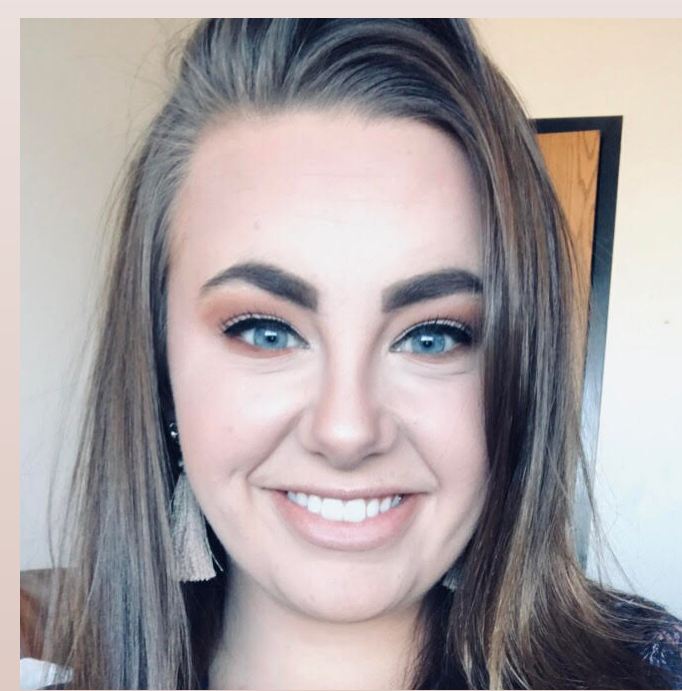
Kristen Pozsonyi

After contributing to the MetPy package during her internship as an undergraduate, Kristen enrolled in a PhD program at the University of Wyoming. She is currently collecting observations of emissions from oil and gas facilities in the Permian Basin for a regional air quality study.
"My Unidata internship gave me programming skills, especially in Python, that helped me progress through my studies and continue to help with data analysis," she says.

Josh Clark

Since 2016, Josh has been a meteorologist for the Washington State Department of Natural Resources , where he provides decision support services for weather phenomena (*e.g.* wind storms, landslides, fires) that affect the agency's ability to manage and protect millions of acres.
"My Unidata mentors created a unique learning experience, were nurturing and patient, and impressed upon me knowledge and skills I continue to use almost five years later," he says.

Internship Goals

The Unidata Summer Internship program seeks to help students develop sustainable software development skills. High level topics addressed during the summer program include:

1) Documentation (User and Code)
2) Version Control Systems
3) Testing
4) Open Source Software Development Processes

Note than none of these skills is tied to a particular computer language or Unidata software technology. Internships are customized to allow students to pursue their own ideas and needs as they see them from within their own academic settings, with the guidance of Unidata software developer/mentors.

Learn More or Apply Now

Unidata is accepting applications for the 2020 Summer Internship program through January 24, 2020. Scan the code or browse to unidata.ucar.edu/interns to learn more about the program and to apply.
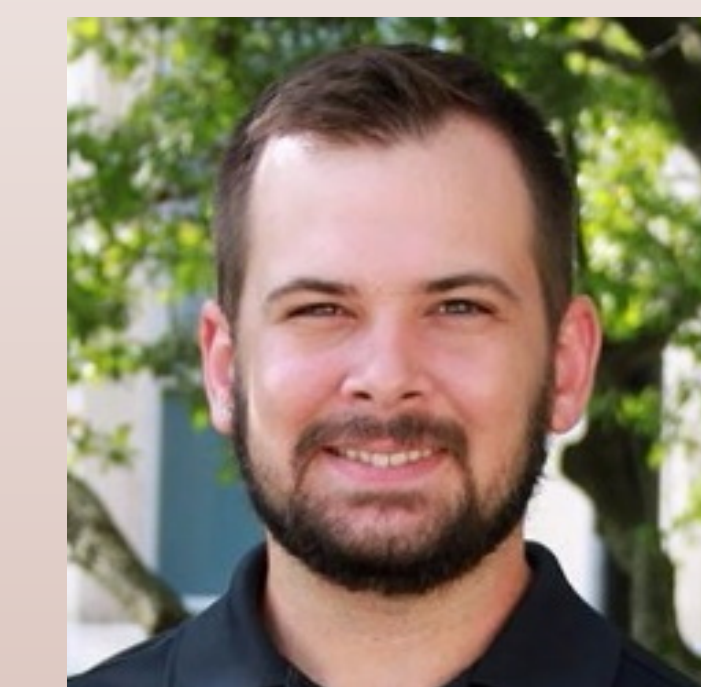
Alex Haberlie

Alex's summer project added important GIS functionality to the MetPy package. "During that summer, I was able to refine my Python programming skills and become better at organizing and maintaining meteorology-related projects via source control," he says. Since the internship, Alex has finished his PhD and is now an assistant professor at Louisiana State University. He is passing on what he learned to his students, some of whom he hopes will also participate in the internship program.

References

[1] National Science Foundation. "A Vision and Strategy for Software for Science, Engineering, and Education." National Science Foundation, 21 Sept. 2012, https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf12113.

[2] Mind the Gap: Preparing Students for Careers in the Private Sector. Proceedings, 99th AMS Annual Meeting, American Meteorological Society, January, Phoenix, AZ. https://ams.confex.com/ams/2019Annual/webprogram/Session48732.html.

[3] https://www.unidata.ucar.edu/blogs/news/entry/unidata_summer_of_code_internship.

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