



Awards

CKIDS DataFirst Fall 2023

A Note About The Awards

- We will give awards to both high-achieving students and mentors
- **Each award for individual achievements will be given \$100 Amazon gift card**
- **Each award for team achievements will be given \$50 Amazon gift card**
- **Students whose work is converted into a published journal or conference paper will receive an additional award!**

Best Interdisciplinary Data Scientist

Yi Ming

Project: US Public Sector Labor Market

Mentors: William Resh, Eli Keunyoung Lee

Yolanda Gil
CKIDS Director

Ulf Hermjakob, Keith Burghardt
Co-chairs

Nomination

Yi has **led the team** throughout the entire process. He has been the **most agile and flexible** in his skill set (though all of the students were great)! His ability to quickly and wholly absorb domain specificity and apply his **broad data science skills** to that domain made this project a **great success**. Not only will this project have **direct policy impacts**, but the Volcker Alliance has preliminarily **approved funding** for this project to be extended, which Yi will subsequently lead. I cannot more emphatically endorse this individual for this award, and to further this point, I am recommending him for several **PhD programs** in Public Policy, including ours at the Sol Price School of Public Policy. Those schools are by their very nature interdisciplinary in their orientation (data science, public policy, political science, public administration, management, etc), and he will one day be a **superstar!**

Best Data Science Developer

Abishek Anand

Project: Understanding the Relation Between Noise and Bias in Annotated Datasets

Mentor: Negar Mokhberian

Yolanda Gil
CKIDS Director

Ulf Hermjakob, Keith Burghardt
Co-chairs

Nomination

Abishek has exhibited exceptional dedication as a data science developer, consistently immersing himself in proactive learning across diverse algorithms and tools. He skillfully applied this acquired knowledge to efficiently analyze multiple datasets. In our weekly meetings, he not only consistently addressed assigned tasks but occasionally exceeded expectations, providing comprehensive analyses and visualizations across all aspects of the results. Moreover, Abishek consistently shared his code with the entire team, fostering familiarity with new algorithms and methodologies. His invaluable commitment, thorough approach, and efficiency in this project have not only kept the team motivated but have also inspired curiosity, particularly for myself as a junior mentor, in delving deeper into the complexities of the problem we were studying.

Best Data Science Team Leader

Sunny Lee

Project: Website for Pyleoclim: A Python Package for the Analysis of Paleoclimate Data

Mentor: Deborah Khider

Yolanda Gil
CKIDS Director

Ulf Hermjakob, Keith Burghardt
Co-chairs

Nomination

Sunny not only finished her part of the project but she organized the team for the poster presentation and the website.

She is not able to attend the meetings since she has classes on Fridays but she is the reason why our team posted their poster first for the midterm.

Details: https://github.com/LinkedEarth/Pyleoclim_util/pull/474

Best Interdisciplinary Data Science Team

US Public Sector Labor Market

Yi Ming, Darren Cao, Sukwon Choi, Anderson Liu, Josephina Bian, Nicole Dias

Mentors: William Resh, Eli Keunyoung Lee

Yolanda Gil
CKIDS Director

Ulf Hermjakob, Keith Burghardt
Co-chairs



Nomination

This team has been, from top to bottom and left to right, an extraordinary collaborative experience, whose product (an analytical dashboard that provides longitudinal analysis on the federal civil service labor market) will inform policymakers, employers, educators, and researchers for years to come. The work is already a key dimension of the Sol Price School's Civic Leadership Education and Research (CLEAR) Initiative and its continued development will be funded by the Volcker Alliance --- a national nonprofit organization dedicated to good government. Each student contributed consistently, with great vigor, and with exceptional rigor throughout. I will do anything I can within my power to assure that this group of exceptional humans are able to meet their potential as they deserve every success in life if they pursue things as they did in this project.

Best Data Science Open and Sharing Practices

US Public Sector Labor Market

Yi Ming, Darren Cao, Sukwon Choi, Anderson Liu, Josephina Bian, Nicole Dias

Mentors: William Resh, Eli Keunyoung Lee

Yolanda Gil
CKIDS Director

Ulf Hermjakob, Keith Burghardt
Co-chairs



Nomination

This team has created an open data dashboard that will aid actors across the federal government in identifying hiring trends and outcomes. Such stakeholders include the US Office of Personnel Management, the US General Services Administration's Office of Evaluation Sciences, researchers in the fields of political science, public management, and labor economics, career counselors at higher education institutions, and good government organizations across the United States. Such a tool did not exist until these students put their minds and efforts to this enterprise, and it will pay off in so many ways to so many stakeholders dedicated to ensuring the best and brightest have access to careers in federal service.

Best Project Achievement

Bhargav Krishnamurthy, Anjali Singh, Yutong Luo

Learning and forgetting in neural networks

Mentor: Marcin Abram

Yolanda Gil
CKIDS Director

Ulf Hermjakob, Keith Burghardt
Co-chairs



Nomination

The team consisting of **Bhargav**, **Anjali** and **Yutong** exceeded the mentor's expectations by a large margin. They were able to propose several interesting (computational) experiments, to test how individual clients learn new skills in federated learning settings, when exposed to non-IID data distributions. They were able to measure the degree of frustration of different, individual clients, as a function of the rounds of the federated protocol. They obtained original results that could be potentially used as preliminary data in a future grant application.

Best Data Science Collaboration Practices

**Austin Zhang, Brian Tinsley, Rachita Jain,
Tejas Sheth, Sneh Shah, Yi Zheng**

Urban Futures Data Core

Mentor: Alice Chen

Yolanda Gil
CKIDS Director

Ulf Hermjakob, Keith Burghardt
Co-chairs

Nomination

All six members of this team worked well together to execute the project. **Rachita** often rallied the team together by facilitating scheduling and logistics. **Austin** and **Sneh** divvied up the data collection and cross-checked notes based on their individual discussions with faculty and peers. **Brian** and **Tejas** worked together in a tag team fashion. And finally, **Yi** served as the conduit between each of these groups, creating a website that collected information created by **Austin, Sneh, Brian, and Tejas**. Together, these individuals set up their own chat system, Google Drive, and Github. They communicated well and met together to complete the project.

Best Data Science Teamwork

**Abhishek Anand, Anweasha Saha, Zihao He,
Prathyusha Naresh Kumar, Ashwin Rao**

Understanding the Relation Between Noise and Bias in Annotated Datasets

Mentor: Negar Mokhberian

Yolanda Gil
CKIDS Director

Ulf Hermjakob, Keith Burghardt
Co-chairs

Nomination

Despite the team's modest size, each member has dedicated their best efforts to actively contribute to the project's progression. We consistently convened for weekly meetings, often meeting twice a week, and made a concerted effort to hold at least one in-person gathering each week.

The challenges we tackled in this project involved various unfamiliar algorithms and datasets for all team members. Nevertheless, through persistent efforts and transparent communication, we effectively assigned suitable tasks to each individual. Each team member demonstrated an active commitment to learning and implementing new concepts independently and also from one another, reflecting a notable level of dedication and enthusiasm. Our team placed great value on transparency, regularly sharing learned materials and collaboratively developing code.

Our collaborative approach, combined with a commitment to continuous learning, exemplifies the qualities deserving of the Best Data Science Teamwork award.

Best Data Science Insight

Bhargav Krishnamurthy, Anjali Singh, Yutong Luo

Learning and Forgetting in Neural Networks

Mentor: Marcin Abram

Yolanda Gil
CKIDS Director

Ulf Hermjakob, Keith Burghardt
Co-chairs

Nomination

Nominated by a mentor from another group:

When I stopped by this poster in the midterm presentation I was able to learn a lot about Federated Learning and its use in data science. This project is focusing effectiveness of federated learning for on an important and common situation in which clients in the dataset are not independent from each other.

https://github.com/ckids-datafirst/2023-fall-nn-forgetting/blob/main/content/results/learning_and_forgetting_midterm_poster_2023.pdf

Best Cyberphysical Data Science

**Yabsera Benyam, Kipauno Washington, Olivia Guo,
Clio Polanco Cercado, Shruti Ramesh, Jeremy Unger**

AI and Data Ethics for Smart Health through Wearables

Mentor: Yolanda Gil

Yolanda Gil
CKIDS Director

Ulf Hermjakob, Keith Burghardt
Co-chairs

Nomination

This team consisted of 4 undergraduates (sophomores and juniors) and 2 first year masters students who worked very well together to write a survey about wearables for health, emphasizing ethical aspects of AI and privacy. The students surveyed data collection devices and data systems for wearable health, and learned about ethical issues in this area together with technologies that can help address them. As one of the students put it, "I learned a lot about the many technical approaches that can be used to protect privacy and enforce ethical design, and this is something that is not discussed enough when you read in the press about AI." The survey is quite comprehensive and will be finished during the winter break to be published at least as a tech report.

Best Presentation

**Ryan Lee, Younwoo Roh,
Lee-Chi Wang, Bill Zhang**

Fault detection in foundry processed devices

Mentors: Andrew Rittenbach, JP Walters

Best Mentor

Negar Mokhberian

Understanding the Relation Between Noise and Bias in Annotated Datasets

Yolanda Gil
CKIDS Director

Ulf Hermjakob, Keith Burghardt
Co-chairs



Nomination

“**Negar** has been an outstanding mentor in my research project, guiding me through the intricacies of Data Science and Machine Learning...”

“**Negar** has been very helpful throughout the project term and been informative about the research papers, explaining them thoroughly when needed. She also assisted us in promptly getting resources for training when required...”

Certificate of Completion To All Students

Thank you!

Yolanda Gil
CKIDS Director

Ulf Hermjakob, Keith Burghardt
Co-chairs

Best Website

[Still to be decided]

[Project title]

Mentor: [names]

Yolanda Gil
CKIDS Director

Ulf Hermjakob, Keith Burghardt
Co-chairs