

UNIVERSITY *of* WASHINGTON

eScience Institute

ADVANCING DATA-INTENSIVE DISCOVERY IN ALL FIELDS



# Azure Cloud Computing Credits for Research & Teaching

**Full Call for proposals -**

**<https://escience.washington.edu/azure-cloud-credits-available/>**

# Topics for today's info session

- eScience Overview
- Azure Credit Awards Timeline
- Proposal Eligibility, Type & Selection Criteria
- Available Cloud Computing Support
- Post-award expectations
- Your questions



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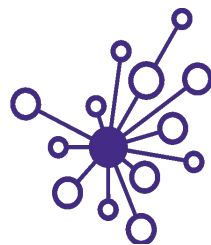
**eScience Institute**

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# Our Mission

The eScience Institute **empowers** researchers and students in all fields to answer fundamental questions through the use of large, complex, and/or noisy data.

As the **hub** of data-intensive discovery on campus, we lead a **community** of innovators in the techniques, technologies, and best practices of data science and the fields that depend on them.



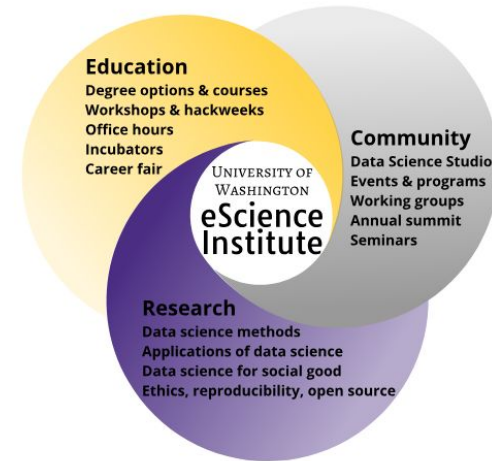
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# eScience Institute Role at the U of Washington and Beyond

- **Education**
  - Disseminate Data Science Expertise and Best Practices
  - Lead Data Science Education at UW
- **Research**
  - Advance the State of the Art in Data Science
  - Use Data Science for Social Good
- **Community**
  - Hub of data science community
  - Partnerships





# Azure Cloud Computing Credits for Research & Teaching

**Full Call for proposals -**

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# Program Timeline

Preference given to proposals submitted by **11:59 p.m. PT on November 8<sup>th</sup>**  
via this online form <https://form.jotform.com/212805682987166>

Notification by mid-November

Credits will be available for use upon notification

Credits must be used by June 30, 2022. Unused credits may be reassigned.

# Eligible PIs - UW Researchers

- All UW campuses: Seattle, Bothell and Tacoma
  - Faculty
  - Postdocs
  - Research Staff
- Graduate and undergraduate students are encouraged to reach out to the [UW Research Computing Club](https://depts.washington.edu/uwrcc/) for access to cloud computing resources.  
*<https://depts.washington.edu/uwrcc/>*



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# Areas of Interest

- Up to \$200,000 of credits to award
- Both Research & Teaching Awards Available
  - Research awards - up to \$20k per project
  - Teaching awards - up to \$10k
- Can be used for any Azure service
- **\*\*Any discipline\*\***





# Research Proposals



- The research project is new and can take advantage of the Azure cloud computing resource. The project needs to have other necessary resources in place so that it can start as soon as the computing credits are awarded.

**<OR>**

- The project is ongoing and the research team may or may not already be using Azure or other computing resources.

Note: We may be able to support HIPAA-compliant projects, please note on application.

# Teaching Proposals



- computing resources for undergraduate and graduate level for-credit courses
- short courses, workshops
- extracurricular research projects carried out by student clubs/teams with faculty mentoring
- lead teaching faculty or faculty mentors of student teams will need to be the Principal Investigators on the application and provide oversight for awarded projects

# Proposal Content

- Project description, up to 2 pages, with minimum font size 10.
  - Research proposals should include specific aims, background, significance and innovation, and methods.
  - Teaching proposals should include the description of the class, the curriculum outline, and the computing projects.
  - Both research and teaching proposals should include a description of how the computing credits will be used, and documentation that any other resources needed for this project are in place (for example, grant award notification, personnel who would undertake the work, or course approval documentation).
- A development timeline should be included in each proposal that shows the milestones for the project including the expected usage of the Azure resources as a function of time (1 page limit).
- References (no page limit).

# Proposal & Project Support

- Esaias Bell - Azure consultant
  - available for support and consultations for proposal preparation and project execution
  - [v-esaiasbell@microsoft.com](mailto:v-esaiasbell@microsoft.com)
- Rob Fatland - UW Director of Cloud and Data Solutions
  - [rob5@uw.edu](mailto:rob5@uw.edu)
- Sarah Stone - eScience Executive Director
  - General solicitation questions
  - [sstone3@uw.edu](mailto:sstone3@uw.edu)

# Azure Trainings - dates TBD

## MICROSOFT AZURE SESSIONS

### INTRODUCTION TO MICROSOFT AZURE CLOUD - 1 HOUR | OCTOBER 19, 9:00 AM-10:00 AM

**Session Description:** In this talk we will talk about the cloud in general, and different cloud flavors: Infrastructure as a Service, Platform as a Service. I will give overview of different most useful Azure offerings, and show some very short demonstrations to get you excited in anticipation for next talks.

I will also show a few examples of cloud architectures, and how c constructed in the cloud from simpler building blocks. Hopefully jump right into the cloud, and watch the rest of the talks of our e

**Instructor:** [Dmitry Soshnikov](#)

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### INTRODUCTION TO DATA IN AZURE - 1 HOUR | OCTOBER 19, 12:00 PM - 1:00 PM

**Session Description:** Data is a vital piece of the choices we make, and can also come in many shapes, sizes and formats. Working with data in the cloud can provide a robust and seamless experience to analyze and make sense of all your data, regardless of its format. In this session you will learn the fundamental concepts around storing and working with different types data in Azure. After this session you will have a better understanding of Azure's data platform and how you can organize and process data within it, the difference between relational and non-relational databases (NoSQL), and working with unstructured and semi-structured data.

**Instructor:** [Jasmine Greenaway](#)

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### SERVERLESS, IT'S MORE THAN A FUNCTION - 1 HOUR | OCTOBER 20

**Session Description:** Let's talk about Serverless as a concept but also show how you can use it. Serverless is more than just a cloud native function it's a whole new way of paying for cloud resources. But most of all it's an opportunity. An opportunity to integrate everything cloud and legacy with an event driven architecture. The best parts is you can mix and match different paradigms and have coded solutions, low-code or no-code all talking to one another.

**Instructor:** [Chris Norring](#)

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# Office hours

## (aka Drop-In Consulting - now via zoom)



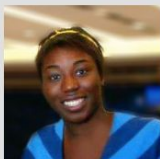
**Bryna Hazelton**  
brynah@phys.washington.edu

**Expertise**

- 🔗 Fourier and image analysis
- 🔗 Statistical and mathematical modeling
- 🔗 Monte Carlo simulations
- 🔗 Python
- 🔗 SQL
- 🔗 IDL
- 🔗 Java

**Hours**

*Will resume in the fall.*



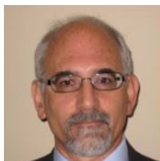
**Bernease Herman**  
bernease@uw.edu

**Expertise**

- 🔗 Python, R, Scala
- 🔗 Machine learning
- 🔗 Interpretable models
- 🔗 Data visualization (D3.js, Leaflet, Shiny)
- 🔗 Version control (Git/GitHub)
- 🔗 Reproducibility and open science

**Hours**

*Will resume in the fall.*



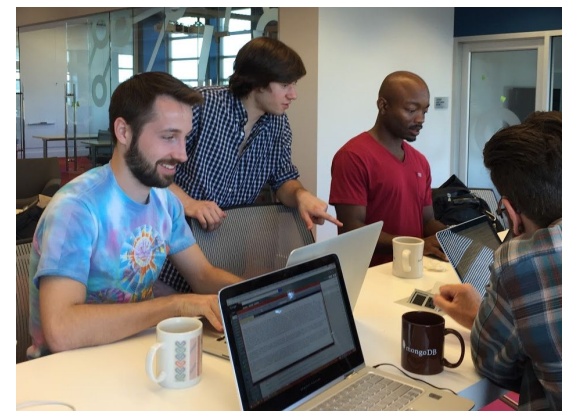
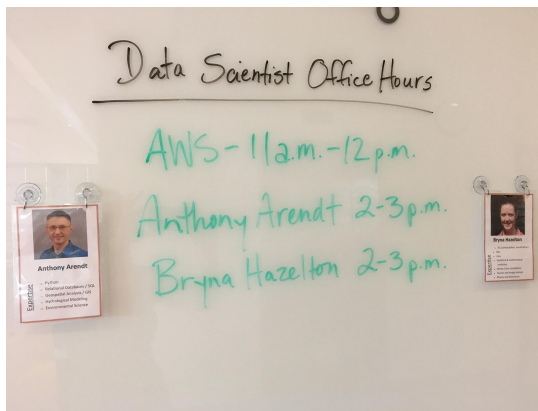
**Joseph Hellerstein**  
joseph.hellerstein@gmail.com

**Expertise**

- 🔗 C
- 🔗 R
- 🔗 Python
- 🔗 Bash
- 🔗 SQL
- 🔗 Software design
- 🔗 Web server design
- 🔗 Reproducibility and open science

**Hours**

*Will resume in the fall.*



<https://escience.washington.edu/office-hours/>

# Review Criteria

- Suitability for cloud computing resources
- For research projects:
  - The significance and innovation of the proposed research
  - Likelihood of success
  - Impact to the research field
  - Potential for continuation, external funding and/or commercialization
- For teaching projects:
  - The need for this resource
  - The relevance and significance of the projects to the class and the learning outcome
  - The number of students this will benefit



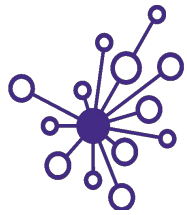
# Post-award Expectations

All teams will be expected to submit:

- a brief progress report at the midpoint
- a brief closeout report at the end of the award

*UW and Microsoft are interested in sharing out success stories to our communities.*





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Thank you! Questions?

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