Supporting Research Teams at Purdue
Overview of Engagement Model and Best Practices

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Overview

- Where Do We Sit?
  Orientation to other groups

- Tiers of Support
  Reactive Engagements

- Outreach and Interviews
  Proactive Engagements

- Projects
  Origination, Timeline, Management, Cost, Examples

- Best Practices
  ???
Where Do We Sit?

- IT Research Computing
  Part of central IT organization

- Provide resources (e.g., computing), services, and solutions

- Collaborate with other groups
  Centers, Libraries, Departmental IT, …
Tiers of Support

Reactive Engagements

Level 1

- Tickets
- Coffee Hours

Level 2

- Direct Support (1:1)
Outreach and Interviews
*Proactive engagements to build relationships*

- **New Faculty Visits**
  Introductions, resources, contact information, answer questions

- **Strategic Partner Touchpoints**
  - Could you tell me a little about your research?
  - Have our services been helpful in pursuing this?
  - Is there anything you are not currently able to do or do well?
  - Are there any special technologies upcoming projects may need?
  - Would you like your students or postdocs to get any training on our systems?
  - Do you have any suggestions or concerns for us?
Projects

*Advanced Support*

- **Origination**
  Tickets, Coffee Hours, Direct, Events, Meetups

- **Timeline / Management**
  Project document is drafted before-hand

- **Cost**
  Free consultation + 2-3 week engagement
  Tier-1 ($$), Tier-2 ($$$) – Rate vs Cost-sharing
## Project Examples

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<td>Data Acquisition via Web Scraping</td>
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### Short (days)
User came to coffee hours a few times asking questions about parallelizing a genetic algorithm currently running in a Jupyter notebook.

Suggested we extract single instance to stand-alone script and use existing tools to scale-out many instances on the cluster. Would have been a lot of work to learn for student.

I turned it into a one-day project and implemented the changes and workflow over Teams call in real time while recording.

### Medium (weeks)
Faculty wants to acquire a large dataset from a foreign website that is not readily downloadable and lacks necessary skills to reliably accomplish the task.

Our staff have experience with this sort of thing and can implement a more robust solution in less time.

### Long (months - years)
Research group sought out expertise in ML for a particular use-case. Wanted to build forecasting engine to feed into a recommendation system for a large citizen-science project.

After pitching many architectural ideas for all the elements of such an endeavor, we decided to work together on building the full solution.

This engagement has lasted multiple years and constituted a mutual relationship including collaborative grant opportunities.
Best Practices

Continuous Improvement

- Meet with researchers (virtual or in person)
  Coffee hours, 1:1 meeting, faculty visit, events, …

- Facilitate self-service where possible
  Web portal, documentation, tutorials, automated tools, …

- Create detailed working documents for advanced support projects
  Include timeline, roles, outcomes, cost, …. (beforehand and share it)

- Recognize Constraints
  We can’t say yes to every request