

slides: hopth.ru/gp

Hosting a Public-facing Class Blog with GitHub pages and Jekyll

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Thank you to *Acacia Ackles*, who collaborated in preparing an earlier version of this presentation.

Outline

WAVES



Workshop for Avida-ED Software Development



Workshop Blog

CSE 491

Advanced C++ Seminar at Michigan State
University



Class Blog

- Hannah Striebel » How do modules change C++?
- Colleen Little » An Introductory Overview of C++ Macros
- Bradlev Bauer » Matrix Multiplication With

PART 1: Classroom Objectives for Writing [8 min]

- Ideas + Discussion

PART 2: Structuring a class blog into curriculum [8 min]

- Advice + Discussion

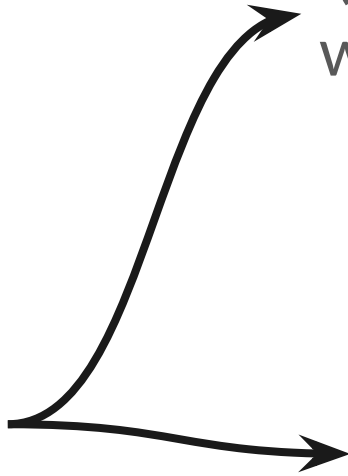
PART 3: GitHub pages blog post workflow [? min]

- Demo (as time permits)
- Link to materials at hopth.ru/gp

PART 1: Classroom Objectives for Writing (and where a blog can fit)

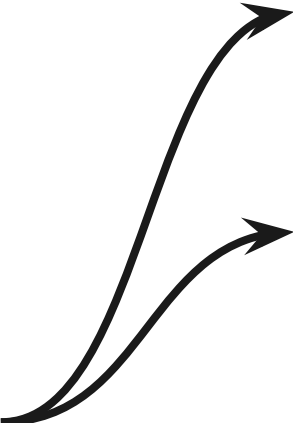
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(1) develop technical
writing proficiency



Writing

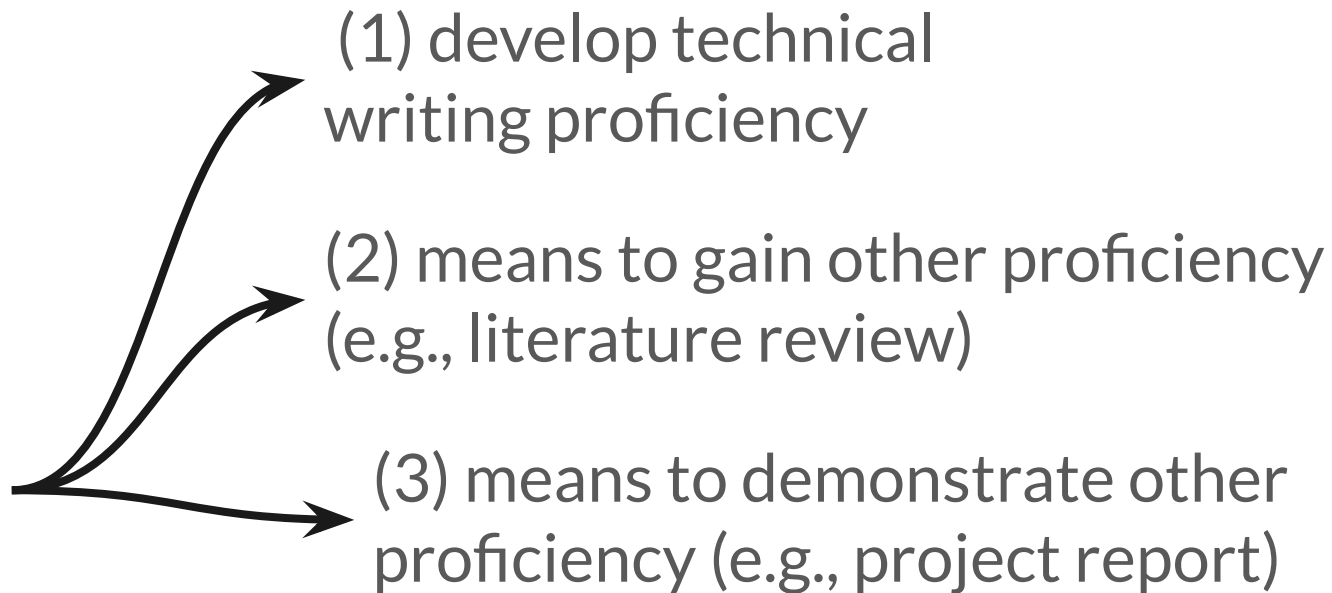
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(2) means to gain other proficiency
(e.g., literature review)

Writing



Writing

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(3) means to demonstrate other
proficiency (e.g., project report)

Writing



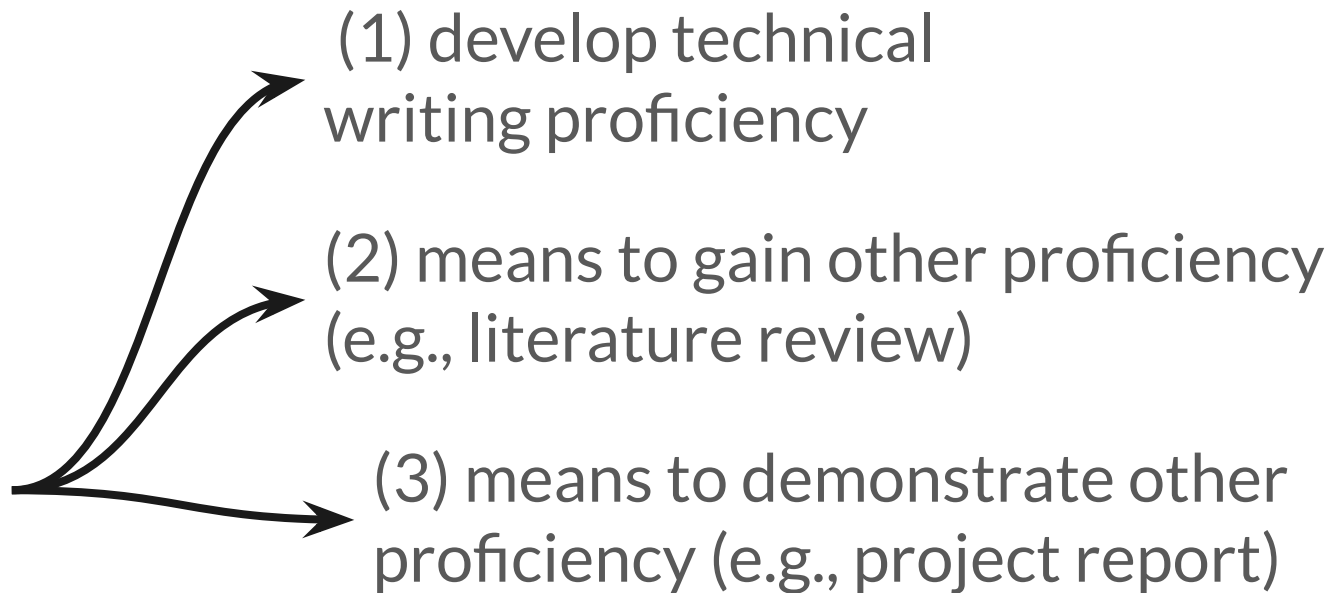
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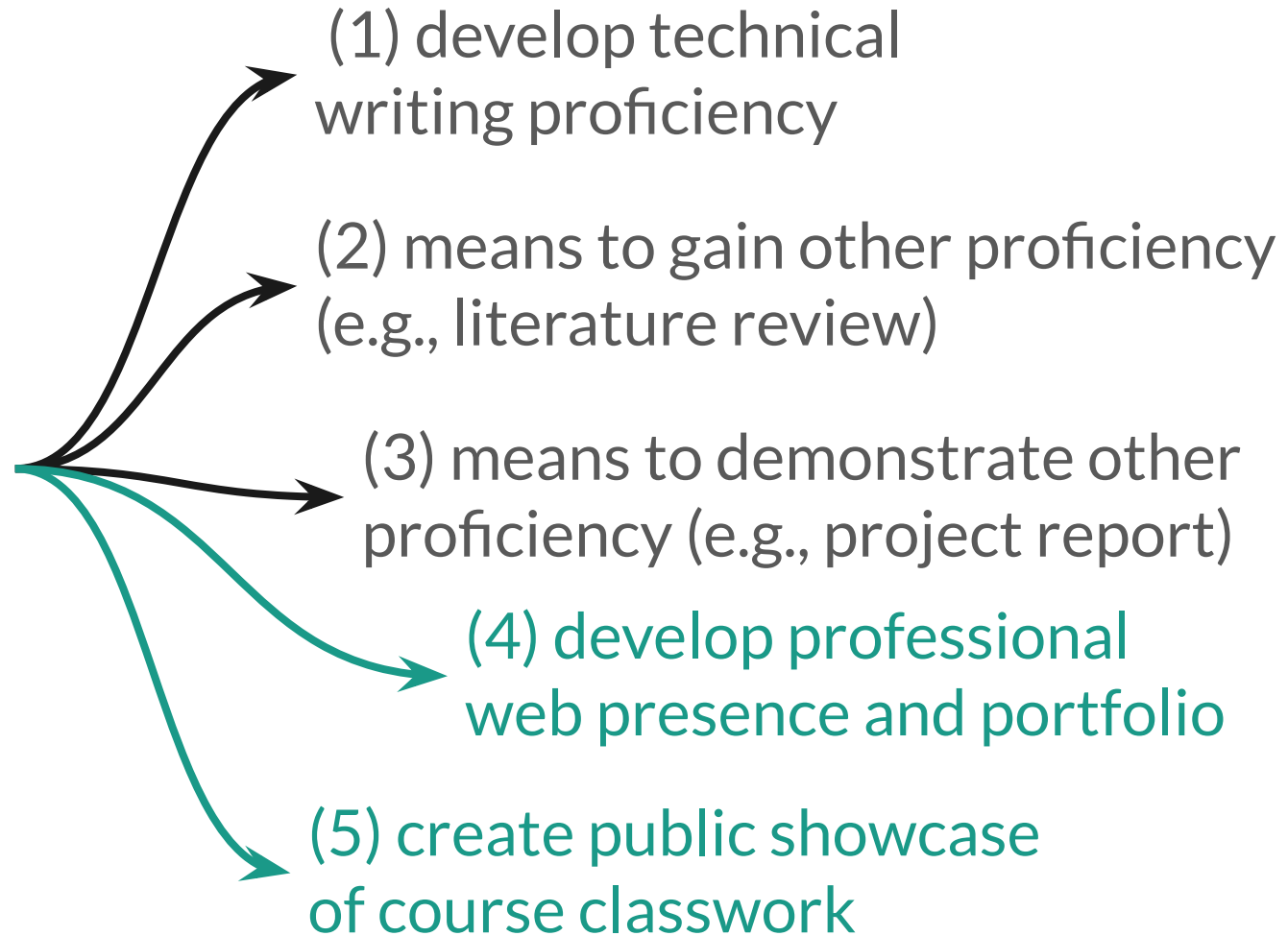
Writing

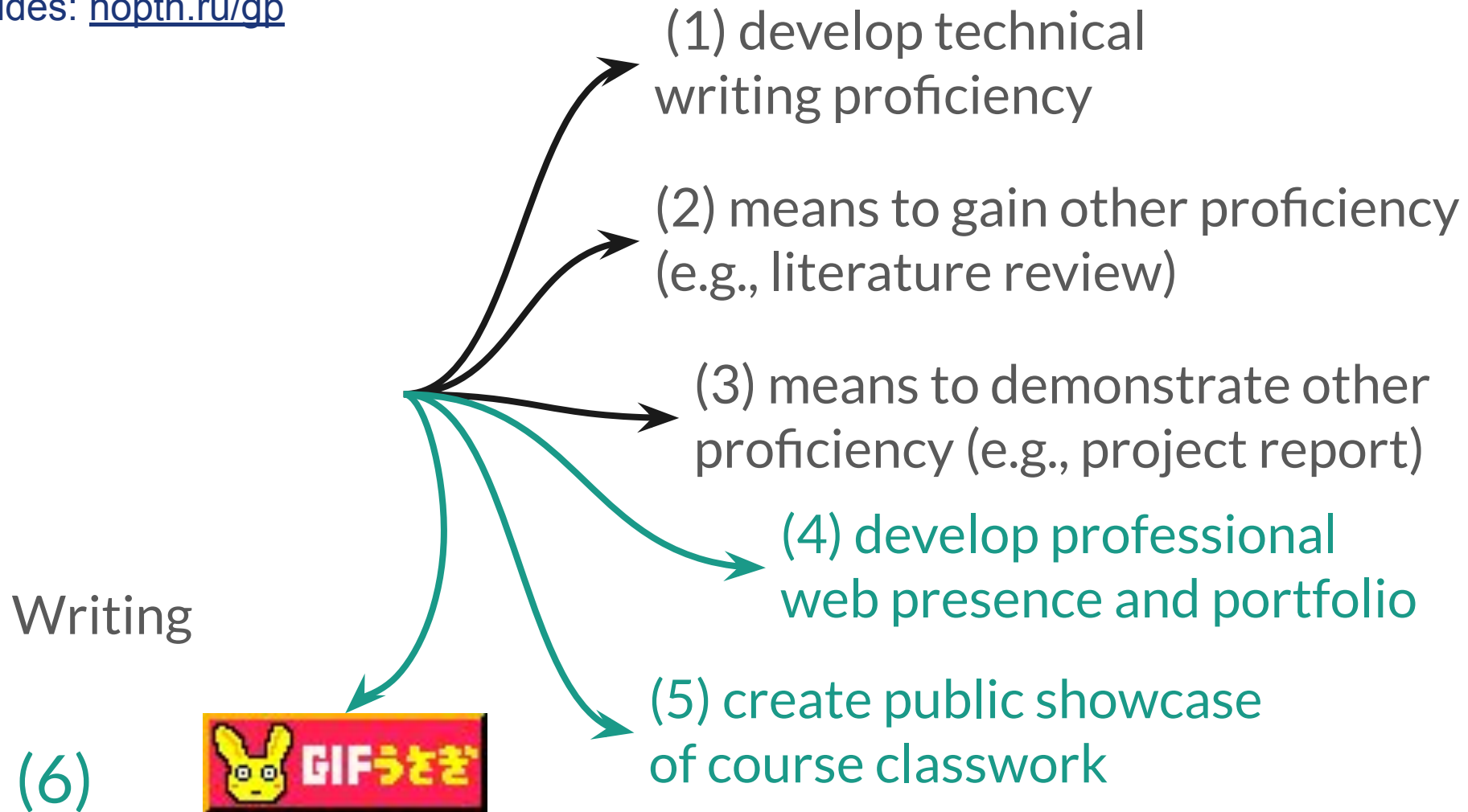




Writing

Writing





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Visualizing Sorting Algorithms with the new D3-wrapper

Oliver Baldwin Edwards

<https://mmore500.com/waves/blog/d3-sorting.html>

Introduction to MABE

Victoria Cao, Jamell Dacon, Tetiana Dadakova, Uma Sethuraman, and Stephanie Zendejo

<https://mmore500.com/waves/blog/Team-MABE.html>

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PART 2: Structuring a Class Blog into a Curriculum



Connect to Learning Objectives

- Objectives from the WAVES class blogs:
 - Capstone endpoint for a larger project
 - Create a professional web presence
- Objectives from CSE 492:
 - Self-guided exploration of an advanced topic
 - Develop technical writing proficiency



Milestone-based Structure

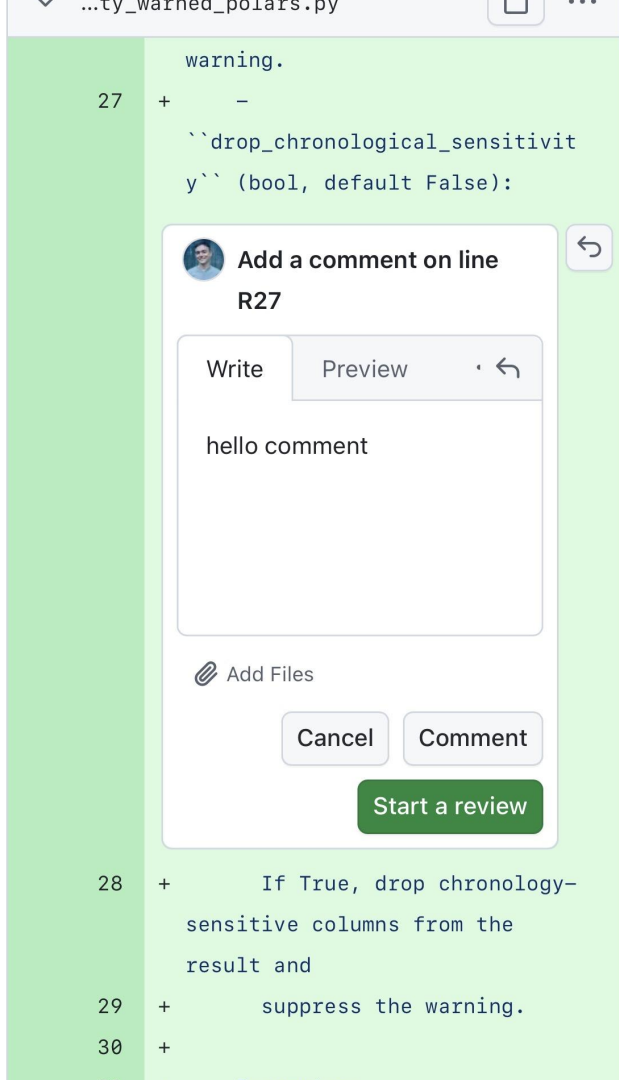
1. Topic
2. Outline
3. Rough Draft
4. *(peer review)*
5. Final Draft

Peer review

- Reader experience feedback
- Line-edits
- High-level comments

Peer Reviews

- consider GitHub “code review” interface
 - Supports nice inline suggestions
 - Reviewers can see each others suggestions
 - Instructors can see reviews
 - Notifies reviewee





Grading Rubric

- both CSE 491 and WAVES were good fits for just tracking “completion”
- with an affordance for resubmission if work insufficient



What Makes a Good Blog Post?

-  big walls of text
- Use bolding to highlight important points and boost skimmability.
- Break paragraphs into shorter parts (even single sentences)
- Use lists.
- Break the text into shorter sections or subsections and make use of headers.
- Add graphics.
- Embed tweets.



Miscellaneous Considerations

- Student preferences — allowing opt-in anonymity or privacy
- Expectations for casual vs. formal tone
 - A completely different direction — conference-paper style report
- Possibility of joint student co-authors on a larger blog post
- Framework for interactivity— e.g., in-browser code or video
-  LLM use policies — defining expectations, and how to support them

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- Having students critique an existing model blog post
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 - Student presentations?
 - One-on-one discussion of project work?

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PART 3: GitHub pages blog post workflow

Blog via GitHub Pages/Jekyll

- Free
- Public facing (username.github.io/blog-name)
- You own and control
- Zero long-term maintenance
- Powerful and highly customizable
- Built-in process for review and acceptance (“pull request”)



Git and Jekyll Cheatsheet

- **git/GitHub/version control**: souped up *track changes*
- **repository**: a *project* with files under track changes together
- **commit**: a snapshot of *added changes* to a repository
- **fork/branch**: create an *alternate version of a repository*
- **pull request**: to *suggest changes* from fork/branch back into main repository
- **merge**: to *accept changes* from fork/branch back into the main repository
- **Jekyll/GitHub pages**: turns *repository into website* and serves it online
- **GitHub actions**: behind-the-scenes worker for GitHub pages
- **markdown**: how you style text and add links
- More advanced git info: hophth.ru/cu



Repository for demonstration:

hopth.ru/ct

(<https://github.com/mmore500/jekyll-class-blog/>)



Step-by-step Instructions

1. Make a fork of <https://github.com/mmore500/jekyll-class-blog/>
2. Create a new file in the `_posts` folder with the appropriate setup
3. Open a pull request for the original repository
4. Done!

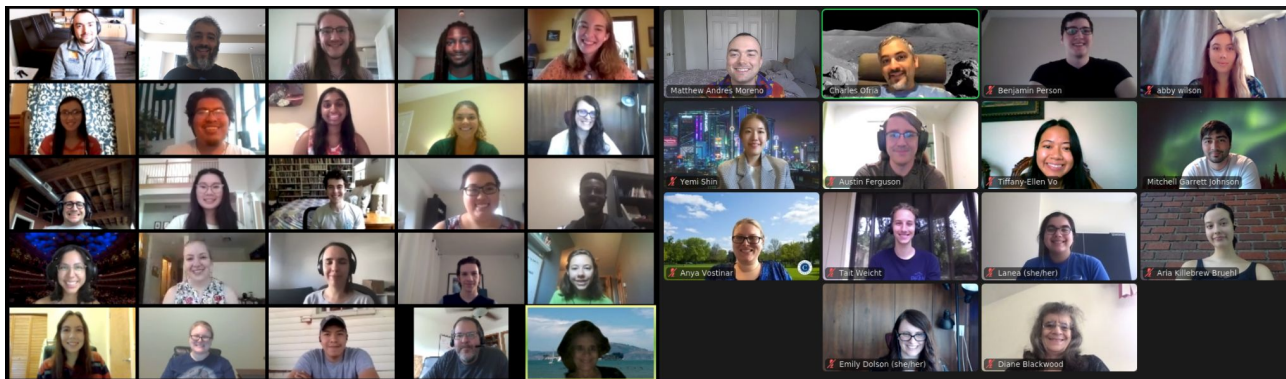
Conclusion



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Resources and Links

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To create your own, you can fork one of these...

<https://jekyllthemes.io/free>



Example Class Blogs

- WAVES REU
 - hopth.ru/cq (<https://mmore500.com/waves/blog>)
 - Example pull request: hopth.ru/cv
- CSE 491 Advanced C++
 - hopth.ru/cr (<http://mmore500.com/cse-491/>)

Reviews should comprise the following:

- line edits,
 - Suggest specific changes and/or note frequently occurring issues and
- high-level comments, and
 - Constructively critique organization, subsection lengths, assumed reader background knowledge, author voice and style, etc.
- reader experience feedback.
 - What was it like reading the post?
 - What were your takeaways from the post?

Share reviews as a comment on the post's pull request.

Milestones

topic

- Open a pull request on the course website that adds a template post with a descriptive title. You'll need to create a new file in `blog/_posts/`. Use a file that already exists in that directory as a template.
- Mark your pull request with the "topic" label and comment on the pull request with a brief description of your post.

outline

- Curate, as applicable, one or more of the following:
 - illustrative code snippets,
 - embedded components (e.g., Compiler Explorer sandboxes), or
 - graphs and/or tables of execution timings.
- List references.
 - Any text included verbatim should be designated with " or > (block quotes) and attributed.
- Push to update your pull request and update the label to "outline."

rough draft

- Flesh out full, best-effort prose for your post.
- Push to update the post's pull request and update the label to "rough draft."

completed draft

- Incorporate reviewer suggestions or briefly justify objection.
- (In addition to peer reviewers, instructors may also provide suggestions.)
- Push to update the post's pull request and update the label to "completed draft "