OUR TEAM

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Major: Cybersecurity

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overseeing all groups
Since Chapel 1.25 seniors at Western Washington University have been working to develop an integrated Chapel debugger to assist Chapel developers in debugging their code.

Our goal is to provide an intuitive, simplistic debugging solution for Chapel developers.
HISTORY OF CHPLDBG

With the complex abstraction and unique characteristics of the Chapel programming language, at the inception point of this project, there was not much debugging support available.

GUI
Original design utilized a multi-window GUI

GDB
Initially, debugging consisted of opening multiple SSH terminals and running gdb on individual locales

CLI/TUI
Shifted away from the GUI in favor of a more unified CLI.
GUI vs TUI
WHY WE ARE HERE

**AWARENESS**
We would like to bring awareness to the work we have expanded upon and gain momentum for chpldbg going forward.

**INSIGHT**
This is the best place to get insight and feedback into what actual Chapel developers would want out of a debugger.
## Feature Breakdown

<table>
<thead>
<tr>
<th>Breakpoints</th>
<th>Debug-Flag</th>
<th>Step</th>
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</thead>
<tbody>
<tr>
<td>Pause execution at specific lines or functions</td>
<td>Specific flag that sets all needed flags for debugging</td>
<td>Allows users to step through the code one line at a time</td>
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<table>
<thead>
<tr>
<th>Next</th>
<th>TUI</th>
<th>Printing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar to Step but steps over function calls</td>
<td>Textual user interface that provides visualization of source code</td>
<td>Allows users to inspect the value of variables throughout execution</td>
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THANK YOU

Questions?