**CGI: Common Gateway Interface**

- [http://hoohoo.ncsa.uiuc.edu/cgi/overview.html](http://hoohoo.ncsa.uiuc.edu/cgi/overview.html)
- **How do programs running on the server communicate with clients over the web?**
  - Can do simple UI stuff in HTML: textfield, buttons, radio buttons, select/choicebox, checkbox, ...
  - Communicate choices to client program via “parameters”

- **The communication is done by encoding text in a string that’s passed to program running on server**
  - Server program can be written in Perl, C, C++, Java, ...
  - Two forms of communication: get and post
    - Post is more robust, no limit on size of string sent

**Setting up CGI programs**

- [http://www.oit.duke.edu/sa/cgi/](http://www.oit.duke.edu/sa/cgi/)
  - Request a CGI key
  - Create a directory and give cgi.ola rliw permission
  - Put code in the directory, html pages can live anywhere

- **Debugging is tricky, probably want to debug from the command-line rather than over the web**

- Be sure to send appropriate header to start HTML page from server program when sending to client/browser
  - Missing header causes “internal server” or other error

- **See code examples and HTML sample for details**
  - Server must parse arguments
  - Replace “%” with “\%”, look for %xx args, replace them