Bibliography

For Grad Students and Honors Students

CSC 4351, Spring 2020

Due: 20 April 2020

Annotated Bibliography

Pick a fairly narrow compiler research topic and produce an annotated bibliography. List at least 20 research papers on the topic in a style in which they would be cited at the end of a paper. Read at least five of these papers and summarize the research contributions in one or two paragraphs each.

Here are some sample topics:

- interprocedural register allocation,
- pointer alias analysis,
- program slicing,
- points-to analysis,
- abstract interpretation,
- proof-carrying code,
- incremental compilation,
- loop transformations (e.g., fusion and tiling),
- polyhedral model optimization,
- automatic parallelization,
- power minimization for embedded systems,
- memory optimization for embedded systems,
- compilation for functional languages (e.g., graph reduction)

Of course, there are many more topics. You can find other topics in our textbook or by browsing compiler conferences and journals.

Try to find mostly recent papers, say, within the last 2-5 years. For finding papers, of course, you could use Google searches, but you could also browse compiler conferences (e.g., PLDI, POPL, PACT, LCPC, OOPSLA, ECOOP, LCTES, CC, ICFP, google ‘compiler conferences’ for more lists), browse programming language and compiler journals (e.g., TOPLAS), use Google Scholar, CiteSeer, or the Science Citation Index, look in the references of papers you already found, or check the web pages of compiler researchers.

LaTeX and BibTeX

For writing the bibliography, I strongly recommend that you use LaTeX and BibTeX instead of Word. The programs latex and bibtex are installed on classes in 

/usr/bin
For sample LaTeX documents, check out small2e.tex and sample2e.tex in

```
/usr/share/texlive/texmf-dist/tex/latex/base
```

You can find sample BibTeX bibliographies in

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/usr/share/texlive/texmf-dist/bibtex/bib/base
```

or on the web.

There are several editors that provide syntax support for editing LaTeX and BibTeX files. E.g., the Emacs editor has simple modes for writing both file types. For BibTeX, simply open a file with the extension .bib in Emacs, use the Entry-Types menu to select an entry, fill in the details, and clean it up with C-c C-c. Similarly, you could use the TeXworks editor, install an extension, such as the Latex Workshop, in Visual Studio Code, or use the Overleaf online LaTeX editor at www.overleaf.com

For a quick introduction on how to use latex and bibtex, check out the section on BibTeX in the online LaTeX Tutorial:

```
www.latex-tutorial.com/tutorials/bibtex/
```

You can force bibliography entries to be included in the LaTeX document even if you are not citing them by using the LaTeX command \nocite.

If you are writing the bibliography on the classes server, you can use the pdflatex and bibtex commands as described in this tutorial.

The simplest way to install LaTeX and BibTeX on a PC is to use MiKTeX (www.miktex.org), which is a native Windows application. You can also install Emacs (www.gnu.org/software/emacs) as a native Windows application or install all of these tools as part of Cygwin (www.cygwin.com). For Linux and MacOS they are available from your package manager.

**Submission**

Put the source files for your annotated bibliography into the directory prog7 in your cs4351xx account and submit them using

```
p_copy 7
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