LaTeX Workshop:

CVs, Cover Letters, and SOPs

Richard Wong

UT Austin, Fall 2020

Slides are available at **ma.utexas.edu/users/richard.wong**

We will cover:

❖ How to use LaTeX to make your application materials look nice.
❖ Example LaTeX files will be provided!

We will not cover:

❖ What content should go into your application materials.
❖ Come to office hours for advice on this!

Before we begin, some tips:

❖ Update your CV every semester!

- ● It will save you time in the long run!

❖ You will need to make a different CV for <u>NSF applications</u>.

❖ Google and <u>tex.stackexchange.com</u> are your friends. If you want to do something in LaTeX, someone else has probably tried to do it first.

CVs/Resumes

❖ There are a lot of CV/Resume templates on Overleaf.
- You should choose your favorite!
- The basic structure / commands will be the same.

❖ I will be talking about the template I use, which is based on the Awesome CV template.

Richard Wong
Ph.D. Candidate, Mathematics (He/Him/His)
Department of Mathematics, University of Texas at Austin, Austin, TX 78712
PMA 11.142 | richard.wong@math.utexas.edu | ma.utexas.edu/users/richard.wong

Education

University of Texas at Austin — Austin, Texas
Ph.D. Candidate in Mathematics — Expected May 2021
- Concentration in Teaching and Mentoring, expected 2020
- Concentration in Communicating Science, 2019
- Teaching Preparation Certificate, 2018
- Inclusive Classrooms Leadership Certificate, 2017

Rutgers University — New Brunswick, New Jersey
B.S. Summa Cum Laude in Mathematics (honors track), *highest honors* — May 2015
- SAS Honors Program
- Matthew Leydt Society, Class of 2015

Publications

[1] **Endo-trivial Modules via Galois Descent**
Jeroen Meer, Richard Wong
In preparation (expected 11/2020)

Teaching Experience

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Rutgers University — Fall 2012 - Spring 2015
- Mentor for: 152H, 192H, 251H, 291H, 292H (honors integral and multivariable calculus, and honors differential equations).

Personal Data

❖ In Awesome CV, the header is pre-formatted.

◆ Just fill in the relevant details!

❖ In other formats, you might need to format it yourself (using commands like \\ and \href)

```
56  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
57  %       Personal Data
58  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
59  %%% Essentials
60  \name{Richard Wong}{}
61  \address{Department of Mathematics, University of Texas at Austin, Austin, TX 78712}
62  \office{PMA 11.142}
63  %\mobile{(609)-297-7663}
64  %%% Social
65  \email{richard.wong@math.utexas.edu}
66  \homepage{ma.utexas.edu/users/richard.wong}
67  %\github{posquit0}
68  %\linkedin{posquit0}
69  %%% Optionals
70  \position{Ph.D. Candidate, Mathematics (He/Him/His)}%Software Engineer{\enskip\cdotp\enskip}Security Expert}
71  %\quote{``Make the change that you want to see in the world."}
72
73
```

CV Contents

❖ Use \import. This makes the LaTeX organization much easier and cleaner.

❖ Use \clearpage to force page breaks when necessary.

```
 93    %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
 94    %      Content
 95    %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
 96    %%% Make a footer for CV with three arguments(<left>, <center>, <right>)
 97    %\makecvfooter
 98      %{\today}
 99      %{Claud D. Park~~~·~~~Résumé}
100      %{\thepage}
101
102    \begin{document}
103    %%% Make a header for CV with personal data
104    \makecvheader
105
106
107    %%% Import contents
108    \import{\sectiondir}{education.tex}
109    \import{\sectiondir}{papers.tex}
110    \import{\sectiondir}{teaching.tex}
111
112    %\clearpage
113    \import{\sectiondir}{service.tex}
114    \import{\sectiondir}{honors.tex}
115
116    \clearpage
117    \import{\sectiondir}{conferences.tex}
118
119    \end{document}
120
```

CV Contents

❖ Use \cventry for sections that require descriptions, like Education or Service.

❖ Use \cvitem to concisely describe your CV entries.

❖ Use \href to link to relevant webpages.

❖ Use \cventrylast for the last entry in a section for spacing reasons

```
1   \cvsection{Education}
2   \begin{cventries}
3     \cventry
4       {Ph.D. Candidate in Mathematics}
5       {University of Texas at Austin}
6       {Austin, Texas}
7       {Expected May 2021}
8       {
9         \begin{cvitems}
10          \item {\href{https://cns.utexas.edu/graduate-education/professional-developme
              and Mentoring}, expected 2020}
11          \item {\href{https://cns.utexas.edu/graduate-education/professional-developme
              Communicating Science}, 2019}
12          \item {Teaching Preparation Certificate, 2018}
13          \item {Inclusive Classrooms Leadership Certificate, 2017}
14        \end{cvitems}
15      }
16    \cventrylast
17      {B.S. Summa Cum Laude in Mathematics (honors track), \textit{highest honors}}
18      {Rutgers University}
19      {New Brunswick, New Jersey}
20      {May 2015}
21      {
22        \begin{cvitems}
23          \item {SAS Honors Program}
24          \item {Matthew Leydt Society, Class of 2015}
25        \end{cvitems}
26      }
27
28
29      %\begin{cvitems}
30        %\item {Advisor: Andrew J. Blumberg}
31      %\end{cvitems}
32    %}
33  \end{cventries}
34
```

CV Contents

❖ Use **\cvhonor** for sections that require minimal descriptions, like Honors or Awards.

❖ Use **\href** to link to relevant webpages.

```latex
1   \cvsection{Scholarships, Honors \& Awards}
2   %\cvsubsection{International}
3   \begin{cvhonors}
4     \cvhonor
5       {FIC Graduate Student Teaching Award}
6       {UT Austin}
7       {Austin, TX}
8       {2020}
9     \cvhonor
10      {Provost's Graduate Excellence Fellowship}
11      {UT Austin}
12      {Austin, TX}
13      {2015-2020}
14  %   \cvhonor
15  %     {Graduate Research Assistant}
16  %     {UT Austin}
17  %     {Austin, TX}
18  %     {2015}
19    \cvhonor
20      {Wolfson Annual Award for Academic Excellence in Mathematics}
21      {Rutgers University}
22      {New Brunswick, NJ}
23      {2015}
24    \cvhonor
25      {Weill Scholarship in Mathematics}
26      {Rutgers University}
27      {New Brunswick, NJ}
28      {2014, 2015}
29    \cvhonor
30      {REU Participant}
31      {Indiana University Bloomington}
32      {Bloomington, IN}
33      {2014}
34    \cvhonor
35      {John Bogart Prize}
36      {Rutgers University}
37      {New Brunswick, NJ}
38      {2014}
39    \cvhonor
40      {Alan Marc Schreiber Memorial Scholarship}
41      {Rutgers University}
42      {New Brunswick, NJ}
43      {2013}
44
45
46
47  %\end{cvhonors}
48
49  %\cvsubsection{Domestic}
50  %\begin{cvhonors}
51  \end{cvhonors}
52
```

CV Contents

❖ For the Publications section, you will need to create a BibTeX file (papers.bib)

❖ Your publications section will pull citations from this BibTeX file.

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Advanced CV tools

❖ All of the magic is contained within the class file (awesome-cv.cls).

❖ The class file controls all of the formatting and style (such as fonts, colors, positioning, etc.)

Q&A Break

Cover Letters

❖ Similarly, there are Cover Letter templates on Overleaf.

❖ I formerly used a modified Awesome CV template.

❖ I currently use a moderncv casual template.

UCLA Department of Mathematics
520 Portola Plaza
6363 Math Sciences Building
Los Angeles, CA 90095

November 20, 2020

Dear Search Committee,

I am writing to apply to the position of Assistant Adjunct Professorship in the Mathematics Department at the University of California, Los Angeles. I am currently a graduate student at the University of Texas at Austin under the supervision of Andrew Blumberg. I expect to complete my Ph.D. in May 2021.

My research is in computational equivariant homotopy theory, applied to the modular representation theory of finite groups. In my thesis work, I used homotopy-theoretic methods to compute the group of endotrivial modules for certain p-groups, thereby providing new insights into classical computations and results in modular representation theory. In future work, I plan to extend my computations to other classes of groups, and I also plan to study other problems in representation theory by constructing and computing novel homotopy invariants.

I believe that the environment at UCLA would allow my research program to flourish. In particular, my research interests are most closely aligned with those of Professors Mike Hill, Paul Balmer, and Raphaël Rouquier. Furthermore, there is also a strong postdoctoral group, including Christy Hazel and Hood Chatham, as well as the graduate student groups in algebra and topology that I could possibly collaborate with.

Beyond my research program, I would be an active participant and contributor to the department. Teaching and communicating mathematics is an important part of my mathematical identity, and I have experience teaching a variety of courses, ranging from calculus, to first-year signature courses, to training undergraduate TAs how to teach mathematics. I have also given various seminar and invited talks, and I have also organized several learning seminars throughout my time at UT Austin.

I am also committed to actively promoting and supporting diversity, inclusivity, and equity in mathematics through both education and outreach. I have organized or worked with a number of programs that recruit, support, and mentor young or underrepresented mathematicians, and I would continue to work with existing programs at UCLA, such as the DRP and the Curtis Center's Los Angeles Math Circle. I would also use my previous experiences to establish new educational or diversity-focused initiatives to support the department.

I have arranged for letters of recommendation to be sent via MathJobs.org from Andrew Blumberg and Dan Isaksen, as well as a letter from Mark Daniels, attesting to my teaching abilities. I am also submitting the AMS cover sheet, my CV, research statement, teaching statement, and diversity statement.

I appreciate your time and consideration and look forward to hearing from you.

Sincerely,

Richard Wong

UT Austin Math Dept. ● 2515 Speedway, PMA 8.100 ● Austin, TX 78712
✉ rwongmath@gmail.com   ◉ ma.utexas.edu/users/richard.wong

Cover Letters

- ❖ Again, everything is pre-formatted.
- ❖ It is harder, but possible to make edits to the moderncv class.
- ❖ Some bits are hacked to get the right formatting.

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SOPs, etc.

❖ I use a [moderncv template](#) that matches my cover letter.

❖ I use \hskip to manually indent paragraphs.

❖ I created a special \mysubsection command to format subsections.

Statement of Teaching Philosophy

There are two key principles that drive my teaching philosophy: The first is the use of active and inquiry-based learning (IBL) techniques, and the second is the use of empathetic, inclusive and equitable teaching practices. The former idea explains how I teach course content, whereas the latter explains how I engage my students. Together, these two ideas describe my current approach to pedagogy. These principles grew out of my experience teaching a variety of courses, ranging from large calculus sections, to small first-year signature courses, to training undergraduate TAs how to teach mathematics. Furthermore, my teaching philosophy continues to evolve as I engage with pedagogical research and reflect on my teaching experiences.

Active and Inquiry-Based Learning

"In mathematics, the art of asking questions is more valuable than solving problems." - Georg Cantor

One common misconception that I've come across is the idea that everything in mathematics has been figured out. Years of math classes and homework have taught students that there is always some formula or theorem that can be applied to easily solve the problem. However, this is neither the case in research mathematics nor in real-world applications. Oftentimes the most difficult aspect is in coming up with the right question in the first place!

Therefore, I teach the mathematical context and the motivating questions in addition to the formulas, theorems, and proofs. Moreover, I teach my students the art of asking questions, namely how to use questioning as a tool to clarify ideas, to stimulate new ideas, and most importantly, to communicate mathematics. To this end, I design my courses with an emphasis on student collaboration. I have found that this active and inquiry-based approach is useful in teaching at all levels of mathematics, from first semester calculus to graduate level mathematics.

Calculus

In my calculus discussion sections, I use inquiry-based and active learning techniques to make my discussion sections a welcoming environment where students are encouraged to actively engage with the course material. In particular, I run my discussion sections as collaborative problem solving sessions. In a typical session, I dedicate the first 10-15 minutes to soliciting and discussing student questions. This routine allows me to gauge student understanding, and also gives my students a voice in the classroom. Following this question period, the remainder of the session is dedicated to active and collaborative student learning. For each session, I prepare problems that focus on illuminating a particular concept, and have students solve these problems in groups of 4-6. In the last 5-10 minutes of class, I ask a group to present their solutions.

In designing these problems, my preference is to pick a single problem that is more challenging or more involved than their typical homework problems. However, I use the technique of scaffolding to reduce the problem into more manageable pieces. In other words, I carefully design sub-questions that guide the students towards the solution. This is another way that I model how to ask effective questions. And eventually, as the semester progresses, I ask my students to scaffold problems for themselves.

Collaboration is the other key component that makes my discussion sections an active and engaging learning environment. My emphasis on collaboration empowers my students to become resources for each other, under my guidance (and occasionally, intervention). It also teaches them how to communicate mathematics to each other through asking questions and explaining ideas in their own words. Similarly, student presentations provide another opportunity to practice

SOPs, etc.

❖ You can change colors using \moderncvcolor{ZZZ}.

❖ You will need to create a special style file (moderncvcolorZZZ.sty).

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