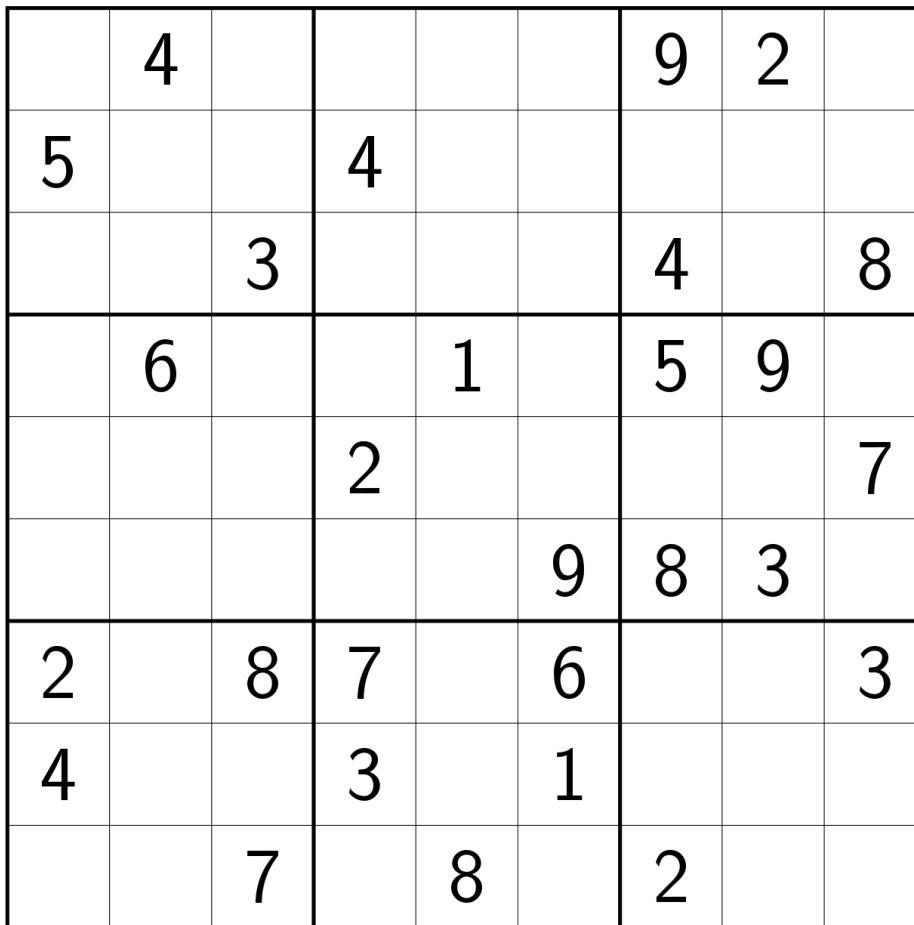


CUSTOM SUDOKU BOOKS WITH RUBY!! AND LATEX!!

Geoffrey Lessel — @geolessel

Half the fun of programming is
FIGURING STUFF OUT



Solution on page 386

Solving Strategies

Full House
Naked Single
Locked Triple
Hidden Quad

X-Wing
Squirmbag
Swordfish
2-String Kite
Exocet
Nishio Forcing Chains

Now I just have to figure out how to
GENERATE PUZZLES

sudoku

by Glenn Fowler

SUDOKU USAGE

Generate 100 minimal symmetric puzzles
limited to pairs and x-wings

```
geo@beringer: ~/Dropbox/Development/CommandLine/Sudoku/ast-sudoku.2009-05-05.darwin.i386/arch/darwin.i386/bin (zsh)
beringer ast-sudoku.2009-05-05.darwin.i386/arch/darwin.i386/bin <2.3.3@>
> ./sudoku -g \
> -n100 \
> -m \
> -sg \
> -q+T2H2W2-XYG \
> -e "valid&&minimal=1"
.4.....2....3.9....58.4.19.2..9.1..7.....61...95.7..8.6..4.....94.76.. # 97527 FNBTHK C25.m/S2.v
...51..2.....9.....7.21.62.5...46.8....4....61.7.....38..51.6..1..3....9.....2 # 97563 FNBHWK C26.m/S2.d
9 ...2 ...6 ..7 ...9 ...8 .....7 ...67498.....3.6.8.9....5.4....49 ...56.6.1...3.7 # 15 FN C26.m/S2.v
9.5.2.....2.3.2...17.....98..7....1.54...65..9...35.....49.73..8....8..47 # 10 FN C27.m/S2.d
9.5.2...6.....2.3.2..617.....98..7....54..46.....35....9.49.7....6...8.3.. # 96635 FNTK C26.m/S2.d
^C
```

THE PROCESS

Generate tens of thousands of puzzles into a text file

Parse and categorize the puzzles and insert into MySQL with a
Ruby script

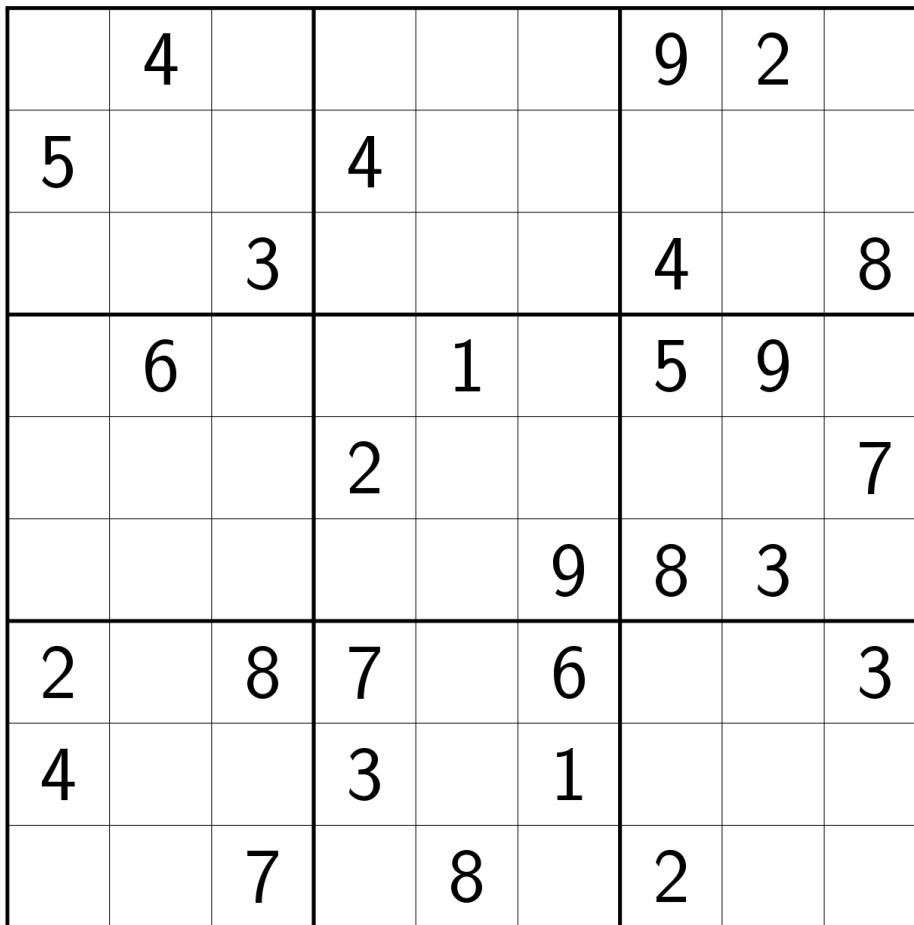
With another Ruby script, fetch the puzzles and generate LaTeX

Use LaTeX to generate a PDF that can be printed and bound

 Use Paul Abraham's LaTeX sudoku package

```
9.
10. filename = "book.tex" if filename.empty?
11.
12. print "Generate book with random rating
progression? (y/n) : "
13. random_rating = gets.chomp
14.
15. File.open(filename, "w") do |file|
16.   file << '\documentclass[twoside,letterpaper]
{book}
17.   \usepackage{sudoku}
18.   \usepackage{multicol}
19.
\usepackage[paperheight=8.5in,paperwidth=5.5in,twoside,
, left=1.5in, right=0.5in, top=1in, bottom=1in] {geometry}
20.   \setlength\sudokusize{8.5cm}
21.   \setlength\sudokuthickline{1pt}
22.   \setlength\sudokuthinline{0.2pt}
23.   \renewcommand*\sudokuformat[1]
{\huge\sffamily#1}
24.   \usepackage{fancyhdr}
25.
```

```
1. \documentclass[twoside,letterpaper]{book}
2. \usepackage{sudoku}
3. \usepackage{multicol}
4.
\usepackage[paperheight=8.5in,paperwidth=5.5in,twoside,
, left=1.5in,right=0.5in,top=1in,bottom=1in]{geometry}
5. \setlength\sudokusize{8.5cm}
6. \setlength\sudokuthickline{1pt}
7. \setlength\sudokuthinline{0.2pt}
8. \renewcommand*\sudokuformat[1]{\huge\sffamily#1}
9. \usepackage{fancyhdr}
10.
11. \begin{document}
```



Solution on page 386

January 11

8	3	6	9	5	1	2	7	4
5	2	4	6	8	7	3	9	1
9	7	1	4	3	2	6	5	8
3	8	2	1	9	4	7	6	5
1	6	7	3	2	5	4	8	9
4	5	9	7	6	8	1	3	2
2	1	3	8	7	9	5	4	6
7	9	5	2	4	6	8	1	3
6	4	8	5	1	3	9	2	7

April 11

1	4	5	2	9	6	7	8	3
3	6	8	1	5	7	4	2	9
2	9	7	4	3	8	1	5	6
8	7	9	5	6	4	2	3	1
5	1	2	9	7	3	8	6	4
6	3	4	8	2	1	9	7	5
9	5	1	3	8	2	6	4	7
4	2	6	7	1	5	3	9	8
7	8	3	6	4	9	5	1	2

February 11

8	3	1	4	5	9	7	6	2
5	2	4	3	7	6	9	1	8
7	6	9	2	1	8	3	4	5
6	1	7	5	9	3	2	8	4
3	4	5	8	2	1	6	7	9
2	9	8	7	6	4	1	5	3
9	7	3	6	8	5	4	2	1
4	5	6	1	3	2	8	9	7
1	8	2	9	4	7	5	3	6

May 11

8	4	1	5	7	3	9	2	6
5	2	9	4	6	8	3	7	1
6	7	3	1	9	2	4	5	8
3	6	2	8	1	7	5	9	4
9	8	4	2	3	5	6	1	7
7	1	5	6	4	9	8	3	2
2	9	8	7	5	6	1	4	3
4	5	6	3	2	1	7	8	9
1	3	7	9	8	4	2	6	5

March 11

2	1	4	8	6	7	3	9	5
7	8	5	1	9	3	2	4	6
9	6	3	5	4	2	1	8	7

June 11

4	6	9	1	2	3	8	5	7
8	3	7	4	5	6	2	9	1
1	2	5	8	9	7	6	3	4

JOHN'S SECOND YEAR OF
SUDOKU

2011

John's Second Year of Sudoku

May 11

						1	5	
				7			8	
2		1					4	
3		2				8		
8	6	2						
	1			6	7			
6			9					
		5	6		8			
7	9		3	1				

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PHOENIX IN ACTION

Phoenix IN ACTION

Geoffrey Lessel

Foreword by Saša Jurić



Covers Phoenix 1.4



phoenixinaction.com

THANK YOU

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bang-con](http://geoffreylessel.com/bang-bang-con)