1978-   # Michael Joshua Ryan   luser.droog@gmail.com
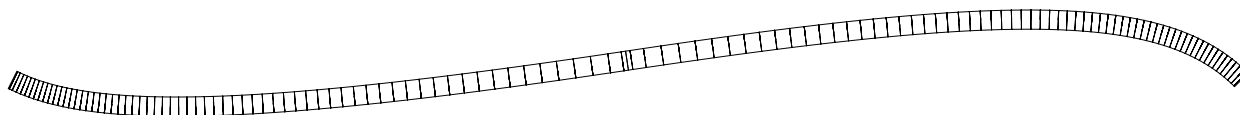
3447 Connecticut St. 104   202-494-2570
St. Louis, MO 63118

Objective

To combine Renaissance aesthetics, cosmopolitan ethics, and scientific technique in the critique and construction of physical and conceptual artifacts.

Education

Dec 2020   **BS Computer Science** University of Missouri - St. Louis

Skills

C, PostScript, Lisp, APL, Forth, Assembly, Java, HTML/CSS/JavaScript, PHP, SQL, shell scripting. Procedural, Functional, Object Oriented, Model/View/Controller.

Employment

1998-2001   Student Programmer, UM - St. Louis Registrar's Office. Perform MARKIV mainframe database queries (MVS/TSO) and reformat data (UNIX) to produce reports (Line-Printer) and address labels using Postscript. One interesting project was producing the data for a student directory with embedded Quark tags. Developed a system for interactive queries and accellerated data entry using WinBatch.

2002-2019   Barista, Starbucks Coffee Co.

Extracurricular

1989-   Study the guitar, piano, bass, clarinet, music theory, songwriting. Rock, Folk, Jazz, Ragtime, Blues, Classical, Flamenco. UMSL Jazz Band, Jazz Ensemble, Pep Band, Concert Band.

1998-1999   "Redaktor" of the Pierre Laclede Honors College Student Association's *Brain Stew.* Designed and Edited monthly magazine using Pagemaker and various other tools.

1999-2000   Treasurer of the UMSL ACM Chapter. *Requisitioned "first" computer!*

1998-2003   Intense interest in programming languages and language implementation, graphics and graphics programming.

2007-present   Began the xpost project with a goal to implement a clone of Sun Microsystems' *NeWS* graphical programming interface for UNIX. Participated in internet programming fora: comp.lang.c, comp.lang.postscript, stackoverflow.com under the name *luser droog*, contributing programs, answers and questions.

2014-present   Performed in local musicals with Stray Dog Theatre and Ignite Theatre on electric bass, upright bass, and electric guitar.

Portfolio

2008-present   xpost: A Level-1 Postscript Interpreter for GNU/Linux/X11 (github.com/luser-dr00g/xpost).
debug.ps: A portable Debugger for PostScript (github.com/luser-dr00g/debug.ps).
pcomb: Parser Combinators in C (github.com/luser-dr00g/pcomb).

```postscript
20  %!PS
21  %Simple Typesetting Engine with Justified paragraphs
22  /margin 72 def /box [ clippath pathbbox ] def /left margin 30 add def
23  /top [ left box 3 get margin sub ] cvx def /right box 2 get margin sub def
24  /bot margin def /newpage { T top moveto } def /sigil<5E>def
25  /br  { 0 lead neg rmoveto } def /hbr { 0 lead -0.5 mul rmoveto } def
26  /cr { left currentpoint exch pop moveto } def /buf <<>> def /++ { dup load 1 add store } def
27  /hr { gsave right left add 2 div  currentpoint exch pop translate
28      7.2 dup scale -32 -1 moveto -28 -3 -20 -3 0 0 curveto
29      currentpoint strokepath currentlinewidth dup 72 div setlinewidth stroke setlinewidth
30      moveto 20 3 28 3 32 -1 curveto 1 setflat
31      strokepath currentlinewidth dup 72 div setlinewidth stroke setlinewidth grestore br } def
32  /rline { gsave dup stringwidth pop neg 0 rmoveto show grestore } def
33  /line { gsave sigil{search{show exch token pop exec exch}{show exit}ifelse}loop grestore } def
34  /par { (\n) { search exch line not { exit } if } if
35      currentpoint exch pop bot lt { showpage newpage } if } loop br } def
36  /last { buf buf length 1 sub get 0 get } def
37  /append { buf buf length 0 gt { dup 0 get 0 1 getinterval (\).,) exch search { pop pop last ( ) eq
38      { buf buf length 1 sub undef } if } if pop } if buf exch buf length exch put } def
39  /push { dup 0 get () eq {pop}{ dup 0 get ( ) eq { buf length 0 eq {pop}{ last ( ) eq {pop}{
40      append } ifelse } ifelse }{ append } ifelse } ifelse } def
41  /trim { buf buf length 0 gt {last ( ) eq { buf buf length 1 sub undef } if } if } def
42  /buffor{ buf 0 get 0 get ( ) eq {1}{0} ifelse  1
43      buf length last ( ) eq {2}{1} ifelse sub  4 3 roll
44      {buf exch get} /exec cvx 3 2 roll /exec cvx 4 array astore cvx  for } def
45  /dump {0 {spaces s} argsbegin { 0 get ( ) eq {/spaces ++} if } buffor
46    cr { aload pop pop setfont stringwidth rmoveto } buffor /gap right currentpoint pop sub def
47   /spaceadjust gap spaces dup 0 eq {pop 1} if div def cr { aload pop /lead exch def setfont
48      {dup ==only}pop s } buffor cr end /buf <<>> def {/ =}pop } def
49  /accum {dup currentpoint pop exch stringwidth pop add right gt {{spaceadjust 0 32 4 3 roll
50      widthshow} dump } if dup stringwidth rmoveto [ exch currentfont lead ] push } def
51  /jtext { { ( ) { search dup (\() eq {accum}{accum ( ) accum} ifelse not{exit}if } loop } def
52  /jpar { sigil{search{jtext exch token pop exec exch}{jtext exit}ifelse}loop {show} dump } def
53  /settab{/tabstop currentpoint pop def}def /tab{tabstop currentpoint exch pop moveto}def
54  /argsbegin{ dup length dict begin {exch def} forall } def /proc { token pop exch pop } def
55  /fontproc {{name lead x} argsbegin ({//name //x selectfont /lead //lead def}) proc bind end } def
56  /I 10 11 /Palatino-Italic fontproc /R 10 11 /Palatino-Roman fontproc def
57  /H 18 16 /Palatino-Roman fontproc def
58  /B {/Palatino-Roman findfont [14 0 0 10 0 0] makefont setfont /lead 13 def} def
59  /T {/Courier findfont [9 0 0 10 0 0] makefont setfont /lead 11 def} def
60
61  (1978-          ) newpage rline
62  (Michael Joshua Ryan        ^settab ^T luser.droog@gmail.com) H par
63  (3447 Connecticut St. 104      ^tab 202-494-2570
64  St. Louis, MO 63118) R hbr par
65
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68  in the critique and construction of physical and conceptual artifacts.) R hbr jpar
69  br br hr br br
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73  (BS Computer Science ^R University of Missouri - St. Louis) /Palatino-Bold 11 selectfont par
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115  (xpost: A Level-1 Postscript Interpreter for GNU/Linux/X11 \
116  (^T github.com/luser-dr00g/xpost^R).
117  debug.ps: A portable Debugger for PostScript (^T github.com/luser-dr00g/debug.ps^R).
118  pcomb: Parser Combinators in C (^T github.com/luser-dr00g/pcomb^R).) R par
119  showpage
```

Right-hand rotated listing (lines 1–19):

```postscript
1   %!PS
2   %CV/Quine Demo
3   20 dict begin /quinedict currentdict def /hack (
4   2 dict dup begin /Duplex true put dup/Tumble false put/setpagedevice dup where{pop cvx exec}{pop pop}ifelse
5   {/top { 45 582 } def /bot 440 def /lnum 0 def /++ { dup dup load 1 add store load } def
6   /line{ gsave /lnum ++  cvs gsave -10 0 rmoveto rline grestore show grestore }def %line numbers
7   /newpage { gsave 0 792 translate -90 rotate T top moveto /realsp /showpage load def
8   /showpage {grestore /newpage}def /realsp /showpage load def
9   1 dict begin /prog currentfile 1e5 cvi string readstring pop def {
10  /quinedict begin /T 7 7.6 /Courier fontproc def newpage (%!PS
11  %CV/Quine Demo
12  20 dict begin /quinedict def /hack  ) dup dup length 1 sub 16#28 put par %type prolog
13  def hack cvx exec) dup 0 16#29 put par %type hack
14  /prog dup length 2 sub 1 exch getinterval par %type seam
15  420 100 translate .27 .27 scale 0 0 612 792 4 copy rectclip rectstroke //prog cvx end exec %thumb
16  %stitch proc, end progdict, execute
17  token pop pop end exec exec
18  def hack cvx exec
19  token pop pop end exec quit
```