Click on the tiny URL next to the name of a link to follow it; to return on a Kindle, click the BACK button twice.

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58th Toronto Outdoor Art


A Brief History of Time


abstract interpretation

http://en.wikipedia.org/wiki/Abstract_interpretation

abstract nonsense

http://en.wikipedia.org/wiki/Abstract_nonsense

Abstraction Challenges

http://models2013.lcc.uma.es/panel.html

Agile software development

http://en.wikipedia.org/wiki/Agile_software_development

Amazon.com

http://www.amazon.com

Aocl download

http://www.cs.utexas.edu/users/schwartz/MDELite/index.html
Chapter A. External URLs Referenced

Apache Velocity
http://velocity.apache.org/

Apple IPhone configuration
https://www.apple.com/shop/buy-iphone/iphone-x

ASD home
https://www.cs.utexas.edu/users/dsb/Voll/index.html

Attribute grammars
https://en.wikipedia.org/wiki/Attribute_grammar

B

Basic Category Theory for
https://mitpress.mit.edu/books/basic-category-theory-computer-scientists

BMW car configuration tool
https://www.bmwusa.com/buy/buy-bmwconfigurator/

BNF Grammars

C

change method signature

code-folds

combustion of methane
https://en.wikipedia.org/wiki/Chemical_reaction

command object
https://en.wikipedia.org/wiki/Command_pattern

compiler-compiler tools

complexity
https://en.wikipedia.org/wiki/No_Silver_Bullet

Conlin Elise (Artist)
https://www.eliseconlin.com/

crossbar switch
https://en.wikipedia.org/wiki/Crossbar_switch

CSV editor
https://thegeekpage.com/best-free-csv-editor-for-windows-10/

CT (Category Theory)
https://en.wikipedia.org/wiki/Category_theory


Dataflow  https://en.wikipedia.org/wiki/Dataflow


Design Patterns text  https://en.wikipedia.org/wiki/Design_Patterns

difference equation  https://en.wikipedia.org/wiki/Recurrence_relation


DLL Hell  https://en.wikipedia.org/wiki/DLL_Hell


Dynamic-link_library


Extreme Programming  https://en.wikipedia.org/wiki/Extreme_programming
facade of MS Edge  https://docs.microsoft.com/en-us/dotnet/framework/winforms/controls/webbrowser-control-overview

FeatureIDE tool  https://featureide.github.io/

Fibonacci code  https://stackoverflow.com/questions/2725038/are-there-any-example-of-mutual-recursion

formal grammars  https://en.wikipedia.org/wiki/Chomsky_hierarchy

fully qualified name  https://stackoverflow.com/questions/15202997/what-is-the-difference-between-canonical-name-simple-name


gemm (general matrix multiply)  https://en.wikipedia.org/wiki/Basic_Linear_Algebra_Subprograms#Level_3


graph grammar  https://en.wikipedia.org/wiki/Graph_rewriting

Graphs are used everywhere  http://web.cecs.pdx.edu/~sheard/course/Cs163/Doc/Graphs.html

GuiDSL tool  http://www.cs.utexas.edu/users/schwartz/ATS.html

Gödel’s incompleteness  https://www.britannica.com/topic/incompleteness-theorem

Halting Problem  https://www.cprogramming.com/tutorial/computersciencetheory/halting.html

Hasse diagram  https://en.wikipedia.org/wiki/Hasse_diagram
Hopkins James (Artist)  
https://www.jameshopkinsworks.com/

hypergraph  
https://en.wikipedia.org/wiki/Hypergraph

Java 8 (2014)  

Java collection  

Java reflection  
https://en.wikipedia.org/wiki/Reflection_(computer_programming)

data
java.awt.Button  
https://docs.oracle.com/javase/7/docs/api/java/swing/ JButton.html

java.awt.TextArea  
https://docs.oracle.com/javase/7/docs/api/java/swing/ JTextArea.html

java.awt.TextField  
https://docs.oracle.com/javase/7/docs/api/java/swing/ JTextField.html

JavaCC compiler compiler tool  
https://javacc.org/

javax.Swing  
https://docs.oracle.com/javase/7/docs/api/java/swing/package-summary.html

Kieler Web Service  
http://betterumldiagrams.blogspot.com/2015/06/graph-generation-with-kieler.html

Knuth Donald  
https://en.wikiquote.org/wiki/Donald_Knuth

Large numbers in Science  
https://sites.google.com/site/largenumbers/home/2-1/
lift controller  https://www.electronics-tutorial.net/finite-state-machines/FSM-Applications/Lift-Controller/

Map reduce  https://en.wikipedia.org/wiki/MapReduce
Maxwell’s equations  http://www.maxwells-equations.com/
MDElite download  https://www.cs.utexas.edu/users/schwartz/MDELite/index.html
Meta-Object Facility MOF  https://en.wikipedia.org/wiki/Meta-Object_Facility
Model Based Systems  https://en.wikipedia.org/wiki/Model-based_systems_engineering
morphism  https://en.wikipedia.org/wiki/Morphism
multiton pattern  https://en.wikipedia.org/wiki/Multiton_pattern

OCL tutorial by Cabot  https://www.slideshare.net/jcabot/ocl-tutorial

pawn promotion  https://en.wikipedia.org/wiki/Promotion_(chess)
photoelectric effect  https://en.wikipedia.org/wiki/Photoelectric_effect
powerset  https://en.wikipedia.org/wiki/Power_set
program transformation systems  https://en.wikipedia.org/wiki/
Program transformation

Prolog https://en.wikipedia.org/wiki/Prolog
Promela https://en.wikipedia.org/wiki/Promela

R

Recursion https://en.wikipedia.org/wiki/Recursion
reductionism https://en.wikipedia.org/wiki/Reductionism
regular expressions https://en.wikipedia.org/wiki/Regular_expression
reverse polish notation https://en.wikipedia.org/wiki/Reverse_Polish_notation

S

signature of a method https://en.wikipedia.org/wiki/Type_signature
software design is an art form https://www.dreamsongs.com/PoetryOfProgramming.html
Sommerville’s Chapter https://ifs.host.cs.st-andrews.ac.uk/Resources/Notes/FormalSpec/AlgebraicSpec.pdf
straight-line code https://encyclopedia2.thefreedictionary.com/straight-line+coding
stream processing https://en.wikipedia.org/wiki/Stream_processing
12

Chapter A. External URLs Referenced

Sumatra PDF Reader  http://www.sumatrapdfreader.org/download-prev.html


Turing Complete  http://en.wikipedia.org/wiki/Turing_completeness


Violet UML Editor  http://sourceforge.net/projects/violet/


VLC Media Player  http://www.videolan.org/vlc/

Wikipedia  http://www.wikipedia.org/

XP methodology  http://en.wikipedia.org/wiki/Extreme_programming

X15 Java SPL  http://www.cs.utexas.edu/~jongwook/x15.html
yUML UML Editor  https://yuml.me
NotePad tool  https://en.wikipedia.org/wiki/Microsoft_Notepad
select relational  https://en.wikipedia.org/wiki/Relational_algebra
Vim tool  https://www.vim.org/
B. External Videos Referenced

Click on the tiny URL next to figure to view its video. To return back to the Kindle text, click the BACK button ONCE.

B.1 Dedication

https://vimeo.com/asdvoll/piggy

https://vimeo.com/asdvoll/harryPotter

https://vimeo.com/asdvoll/piggy

B.2 Overview

https://vimeo.com/asdvoll/RQOParadigm

https://vimeo.com/asdvoll/LofE
Applying arithmetic identities reveals other semantically equivalent expressions and their derivations

RQOCat

RQOCones is derived by projection from RQOCat

parse optimize toCode 𝕆𝕊 𝔽

select ℓ

𝑠₁ =  from 𝑅, 𝑆

where 𝑟 and 𝑠

𝑒₁ = 𝜋ℓ(𝜎𝑟∧𝑠 𝑅 ⋈ 𝑆 ) 𝑗₂ = java

program

𝑒₂ = 𝜋ℓ(𝜎𝑟 𝑅 ⋈ 𝜎𝑠 𝑆 )
B.3 Model Driven Engineering

B.3 Model Driven Engineering

![Diagram of a library and books](https://vimeo.com/assdvoll/assocUML)

A library owns * books.

![Diagram of a book and library](https://vimeo.com/assdvoll/normalization)

A book belongs to 1 library.

![Diagram of a merge operation](https://vimeo.com/assdvoll/merge)

![Diagram of a cone](https://vimeo.com/assdvoll/cone)

![Diagram of an Engineer and model generation](https://vimeo.com/assdvoll/EngineerActions)

![Diagram of a StateParser](https://vimeo.com/assdvoll/FsmCone)

![Diagram of a YMLClassParser](https://vimeo.com/assdvoll/XLCat)

B.4 Refactoring of MDE Metamodels

![Diagram of a cone of instances](https://vimeo.com/assdvoll/subdomain)
Chapter B. External Videos Referenced

https://vimeo.com/asdvol1/hopkins

B.5  OO Design Patterns

https://vimeo.com/asdvol1/subjectInit

https://vimeo.com/asdvol1/subjectUpdate

https://vimeo.com/asdvol1/healthcare

https://vimeo.com/asdvol1/mvcDerivation

https://vimeo.com/asdvol1/wrapping

https://vimeo.com/asdvol1/reader

https://vimeo.com/asdvol1/logging
B.6 Software Product Lines

https://vimeo.com/asdvoll/dinnerOnFloor

https://vimeo.com/asdvoll/explain

https://vimeo.com/asdvoll/debug

https://vimeo.com/asdvoll/clinkedlist

https://vimeo.com/asdvoll/aretheyequal

B.7 DataFlow by Transformation

https://vimeo.com/asdvoll/unitSystemTest

https://vimeo.com/asdvoll/hjoinpic
Chapter B. External Videos Referenced

https://vimeo.com/asdvol1/List

https://vimeo.com/asdvol1/kServers

https://vimeo.com/asdvol1/divergent

https://vimeo.com/asdvol1/mAs

B.8 Category Theory

https://vimeo.com/asdvol1/two

https://vimeo.com/asdvol1/compose
B.9 Appendices

https://vimeo.com/asdvoll/associative

https://vimeo.com/asdvoll/ids

https://vimeo.com/asdvoll/inference2

https://vimeo.com/asdvoll/subcat

https://vimeo.com/asdvoll/bottom

B.9 Appendices

https://vimeo.com/asdvoll/parsetree

https://vimeo.com/asdvoll/piggy