Using Google App Engine

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University of Michigan
School of Information
www.dr-chuck.com

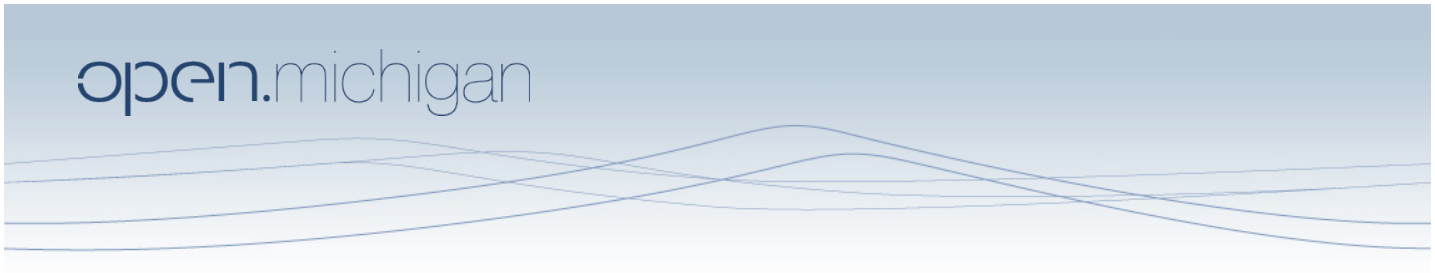
www.appenginelearn.com

Textbook: Using Google App Engine, Charles Severance

Thanks For a Great Dev8D!

- Mahendra Mahey
- David Flanders
- Natasha Bishop
- JISC ....

JISC Developer Days
24-27 February 2010, London



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If you are a teacher...

- You can have my original slides (in Keynote) CC-BY
- All the sample code
- All the screenshots if you want to make your own slides
- You can even re-gift this same workshop if you like
- Just drop me a note...

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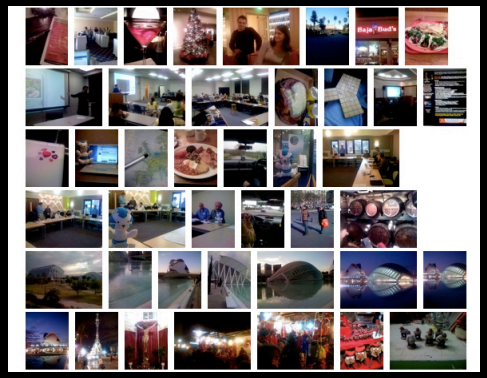
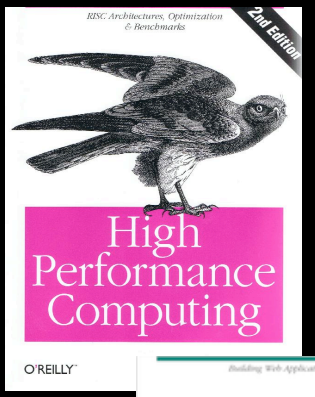
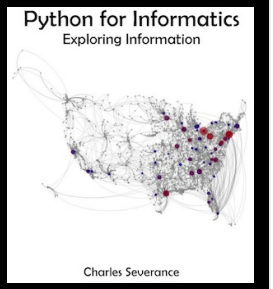


- My previous job: Sakai / CTools Architect
- My research topics: Software For Teaching and Learning, Web Lecture technologies, and High Performance Computing.
- I also work in developing standards for learning software interoperability
- Hobbies: Hockey, Off-Road Motorcycle Riding





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INFORMATICS

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Recent news

- Informatics student receives John Seely...
- First year of informatics a great...
- U-M launches new Information Age major...

About

Launched in the Fall of 2008, Informatics is one the newest undergraduate concentrations (majors) at the University of Michigan. Informatics is an academic collaboration between three schools within the university:

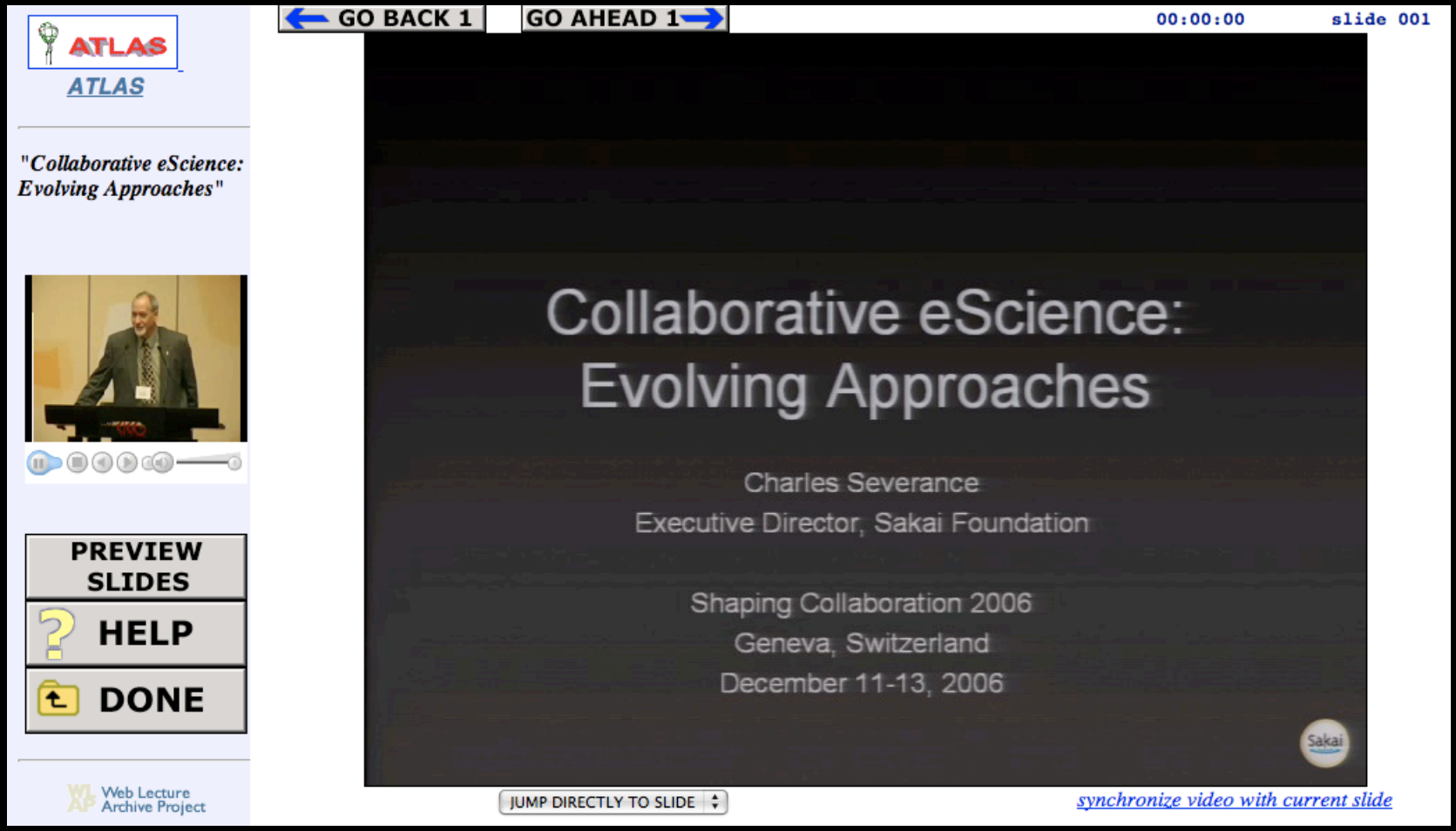
- College of Literature, Science, & the Arts
- College of Engineering
- School of Information

Students majoring in Informatics will graduate with a bachelor's degree in Informatics from the College of Literature, Science, & the Arts, the college in which the concentration is formally housed.

Support for the planning, development, and launch of the concentration in Informatics was provided by generous grants through the Provost's Multidisciplinary Learning and Team Teaching Initiative and the President's Ethics in Public Life initiative.

What is Informatics?

Think Facebook, automobile navigation systems, clinical trials, online marketing, internet searches, medical imaging, risk assessment, disaster preparedness and response, financial market analysis, DNA analysis, artificial intelligence, internet security, online community organizing, smartphone applications, digital archives, medical records storage and retrieval, political polling, supply chain management, real-time weather maps, etc. The applications are endless.



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Lifetime and Year-to-Date Balances
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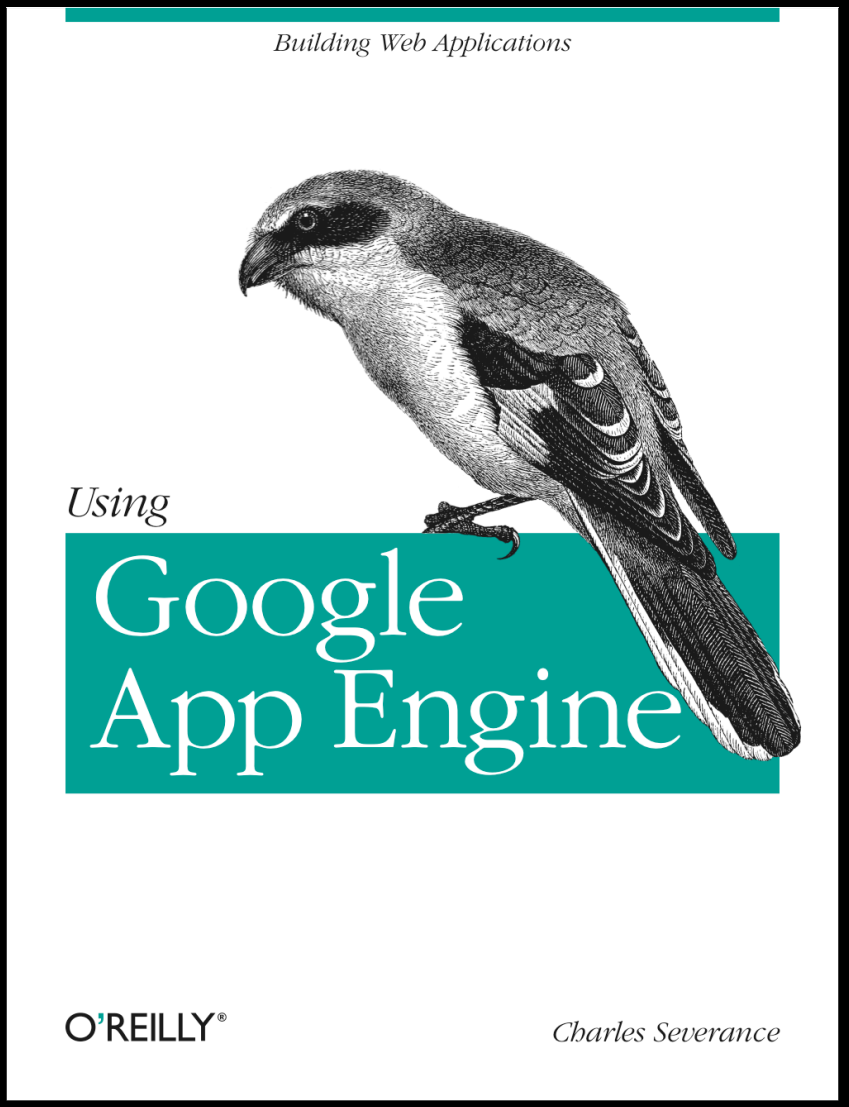
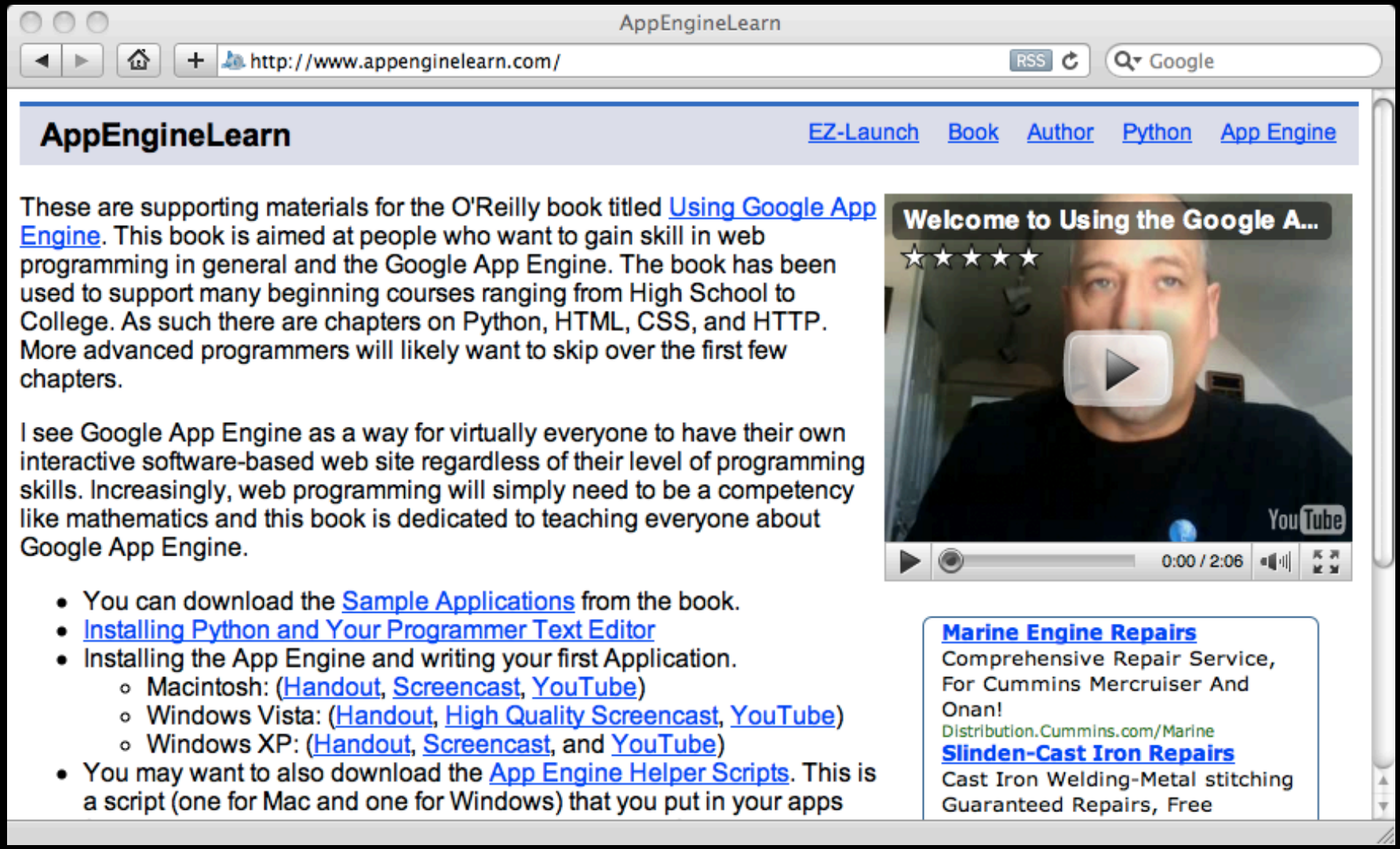


Programming
HTML
CSS
Database
JavaScript

Should be called: Web development for noobs, has little to do with Google AppEngine. First of all, half the book is dedicated to the most cursory intros of Python, HTML, CSS, and HTTP. I remember that back in 1995 there were a lot of useful books in the market that covered just these topics, and I can't vouch for how good this book is on that front since these are not new technologies and standards to me.

It is a self-contained 240-page book on programming. A smart motivated person with no experience could sit down and build a functional cloud app. If you had a friend who wanted to see what the life of a computer nerd was like, this is a great book. Is it as useful as the Google App Engine online docs? Not for an experienced programmer, but for the novice it is nice not to have to refer to a dozen interlocking books and Web sites in order to get "hello world" working.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These are supporting materials for the O'Reilly book titled Using Google App Engine. This book is aimed at people who want to gain skill in web programming in general and the Google App Engine. The book has been used to support many beginning courses ranging from High School to College. As such there are chapters on Python, HTML, CSS, and HTTP. More advanced programmers will likely want to skip over the first few chapters.
I see Google App Engine as a way for virtually everyone to have their own interactive software-based web site regardless of their level of programming skills. Increasingly, web programming will simply need to be a competency like mathematics and this book is dedicated to teaching everyone about Google App Engine.
You can download the Sample Applications from the book.
Installing Python and Your Programmer Text Editor
Installing the App Engine and writing your first Application.
Macintosh: (Handout, Screencast, YouTube)
Windows Vista: (Handout, High Quality Screencast, YouTube)
Windows XP: (Handout, Screencast, and YouTube)
You may want to also download the App Engine Helper Scripts. This is a script (one for Mac and one for Windows) that you put in your apps
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SI539: Design of Complex Web Sites

http://www.si539.com/index.php

Google

SI539 Book Materials CTools Instructor Python App Engine

Welcome to Building Complex Web Sites (SI539)

This course covers the topics of building today's interactive Web 2.0 sites. Topics covered include:

- Basic HTML
- Using CSS to Design a web site
- The Python Programming Language
- The Google Application Engine environment
- Database Design and Modelling

Currently the course is taught each Fall and Winter semester. Registration preference is given to SI students. So far the course has been quite popular and usually fills up quite quickly. If you are interested in taking the course - please see the Frequently Asked Questions section below.

About the Course

The course is taught in a lecture and lab format. There are weekly programming assignments which form the backbone of the course. These assignments start quite simple and straightforward and build to the point where students are building and modifying very complex database backed web sites.

The course is designed for students with no programming experience at all. The material is covered slowly and thoroughly with each important concept reinforced in lecture, lab, podcast, and assignment.

Live Help: Offline

Experience in the course indicates that students who have no prior experience can do quite well in the course and

PythonLearn - Self-paced learning Python

http://www.pythonlearn.com/

Google

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Book Software Informatics Instructor Python About

The goal of this site is to provide a set of materials to allow you to learn Python on your own. This page serves as an outline of the materials to support the book.

- Get your copy of the Python for Informatics: Exploring Information. If you are on the University of Michigan campus, you can buy a physical printed copy in the Shapiro library at the Espresso machine.
- Install the appropriate version of Python and a text editor for your system following these instructions.
- Chapter 1 - Why program? (Slides, Printable Slides, Audio Recording)
- Chapter 2 - Variables, expressions, and statements (Slides, Printable Slides, Streaming Video, Download Video)
  - Worked Exercise Screencasts: 2.3, 2.4
- Chapter 3 - Conditional Execution (Slides, Printable Slides, Streaming Video, Download Video)
  - Worked Exercise Screencasts: 3.1, 3.2
- Chapter 4 - Functions (Slides, Printable Slides, Streaming Video, Download Video)
  - Worked Exercise Screencasts: 4.3
- Chapter 5 - Loops and iterations (Slides, Printable Slides)
  - Worked Exercise Screencasts: 5.1

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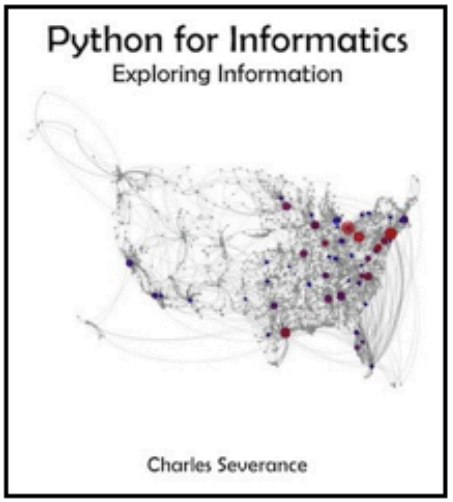
Book Software Informatics Instructor Python About

Python for Informatics: Exploring Information



Welcome to the web site for **Python for Informatics**. The goal of this books is to provde an Informatics-oriented introduction to programming. The primary difference between a computer science approach and the Informatics approach taken in this book is a greater focus on using Python to solve data analysis problems common in the world of Informatics.

The book is a free and open book and is based on the open book titled: "Think Python: How to Think like a Computer Scientist" by Allen B. Downey.

The book is currently under construction with the first 10 Chapters completed and 8 more chapters planned for completion by April 2010.

Here is a PDF of the book as of January 1, 2010 which will be used for SI 502 - Networked Computing during Winter Semester 2010.

Initial Release of Python for Informatics

The book is available on the on-demand book printing Espresso Book Machine at the University of Michigan Library early January 2010 (in time for SI502).

The sample code and data files for the book is here: Py4Inf Code Samples.

TsugiProject Goals

- Easy to use tool building and hosting environment
- Supports IMS Learning Tools Interoperability
- Written in Python, Free, Open Source
- Hostable on Google for Free
- Teachers writing tools - students writing tools (Thousands)

www.tsugiproject.org

Our Outline for Today

- Chapter 1 - Introduction
  - Hands-On: Install AppEngine and (Python if necessary)
- Chapter 5 - A Basic Web Application
- Chapter 6 - Django Templates
  - Hands-On: Make a copy of ae-09-session and get it working
- Chapter 8 - Datastore
  - Hands-On: Add Datastore to your application per Chapter 8