Sesh Venugopal

I am a Teaching Professor and Director of Undergraduate Introductory Instruction in the Computer Science department.

I am the Founding Director of the Computer Science Industrial Affiates Program (IAP), and am the principal liaison for industry relationships. Rutgers program brings computer science students closer to employers

In 2013, I founded Flipd, a video platform for the flipped classroom. Director's startup moves education to digital age

I am the faculty advisor to the student clubs USACS and RuMAD, and am on the faculty of RATE (Rutgers Advanced Technology Extension).

In 2010, I was recognized with a School of Arts and Sciences (SAS) Award for **Distinguished Contributions to Undergraduate Education**.

I hold a Ph.D. in Computer Science from Rutgers. My research was in Supercomputing: developing scalable algorithms for sparse matrix computations. Before emigrating to the US, I studied at the Indian Institute of Technology, Bombay (Mumbai), from where I got a Bachelor of Technology degree in Computer Science and Engineering.

You can reach me by email at venugopa at cs dot rutgers dot edu

---

I have written a textbook, published in November 2006, for teaching Data Structures (CS2), available at amazon.com.

I am putting together VIDEOS for Data Structures, publicly available at YouTube, listed here from latest to earliest. As of April 2017, these videos have close to 1M views.

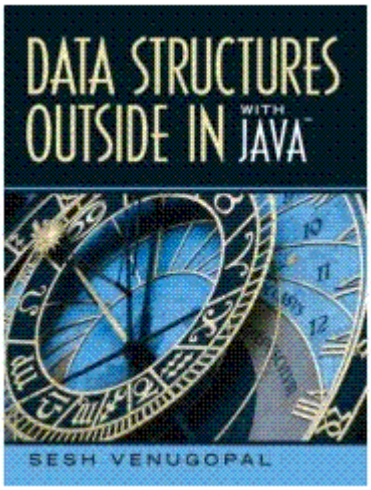
1. Graph Topological Sort Using Depth-First Search
2. Breadth-first Search (BFS) on Graphs Part 1 - Algorithm
3. Breadth-first Search (BFS) on Graphs Part 1 - Implementation
4. Binary Search Tree Part 3 - Delete
5. Binary Search Tree Part 2 - Insert
6. Binary Search Tree Part 1 - Structure and Search
7. Depth-first Search (DFS) on Graphs Part 2 - Implementation
8. Depth-first Search (DFS) on Graphs Part 1 - Algorithm
9. Dijkstra's Shortest Paths Algorithm
10. Graphs - Adjacency Linked Lists Storage
11. Graphs - Types and Representation
12. Quicksort Part 2 - Implementation
13. Quicksort Part 1 - Algorithm
14. Implementing a Heap in Java - Part 2
15. Implementing a Heap in Java - Part 1
16. Binary Search Analysis using Comparison Tree - Part 3
17. Search Analysis using Comparison Tree - Part 2
18. Binary Search Analysis using Comparison Tree - Part 1
19. Java No-Object Linked List - Part 2
20. Java No-Object Linked List - Part 1
21. How to Build a Single-Node Linked List in Java
22. Imagining a Linked List of Strings
23. Imagining a Linked List

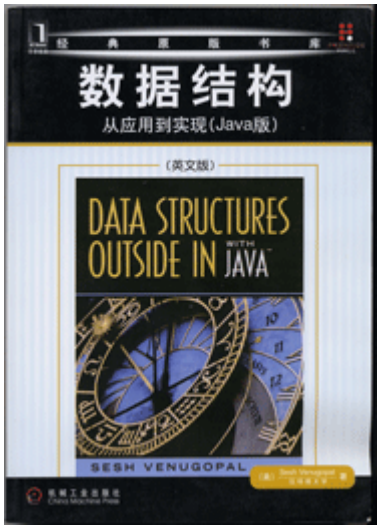
In Fall 2019, I will be teaching Data Structures (CS 112), and Software Methodology (CS 213, including Android App development), both of which I have taught for several years.

At various times in the past I have also taught Introduction to Computer Science (CS 111), and Principles of Information and Data Management (CS 336).

In Fall 2011 and Fall 2012, I taught a freshman Byrne seminar, **Back to the Future: The Evolution of Modern Computing**.

In the summer of 2012, three students from my Fall 2011 Byrne seminar researched the current





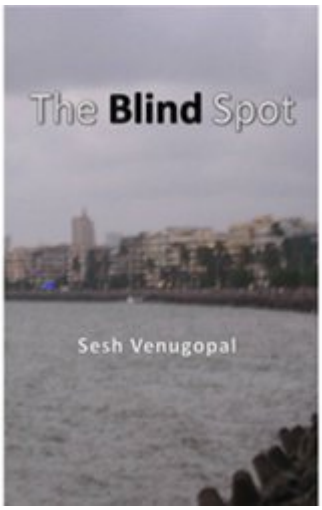
The textbook uses generic types for all container structures, and includes a 90-page introduction to object-oriented programming in Java. The stand-out feature of the book is an outside-in approach that shows how to choose and how to use a data structure (outside) before building it (inside).

Take-away nugget? Every data structures comes with a "price tag", integrated right into each structure's interface. Read the book, and see how.

---

state of practice in parallel computing, with funding from the Byrne program.

Published a novel (first fiction work) in September 2012. Now available as a Kindle book at Amazon.



"The Blind Spot" is on Facebook

"Professor's identity struggle inspires fiction novel"

I love to travel. See my recent blog of a 9-day road trip through Germany, Austria, and the Czech Republic.