

PHILIP R. VENTURA, JR., PH.D.

Curriculum Vitae

Last updated: January 31, 2014

EDUCATION

Ph.D., Computer Science, 2004, University at Buffalo, SUNY

Dissertation: *On the origins of programmers: Identifying predictors of success for an objects-first CSI.*

Advisor: Bina Ramamurthy, Ph.D.

M.S., Computer Science, 2000, University at Buffalo, SUNY

B.A., Psychology and Philosophy, 1993, SUNY College at Buffalo

EXPERIENCE

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|----------------------------|--|
| Fall 2013 – <i>Present</i> | Professor of Computer Science,
Dept. of Computer Science
Palm Beach State College, Boca Raton Campus |
| Fall 2011 – July 2013 | Assistant Professor of Computer Science,
Dept. of Computer Science and Engineering,
Broward College, North Campus |
| Fall 2010 – Spring 2011 | Visiting Assistant Professor of Computer Science,
Dept. of Computer Science and Engineering,
Broward College, North Campus |
| Jan 2010 – August 2010 | Senior Software Engineer,
Research & Development Group,
Velocitude, LLC/Akamai |
| Fall 2009– Spring 2010 | Adjunct Professor of Computer Science,
Dept. of Computer Science and Engineering,
Broward College, North Campus |
| Fall 2008– Spring 2009 | Assistant Professor of Computer Science,
Dept. of Computer Science,
Broward College, Central Campus |
| Summer 2008 | Adjunct Professor of Computer Science,
Dept. of Computer Science and Engineering,
Broward College, Central Campus |
| Fall 2005– Spring 2008 | Assistant Professor/Program Coordinator Computer Science & Computer
Information Systems,
School of Science, Technology, and Engineering Management,
St. Thomas University |

Spring 2004 – Spring 2005	Assistant Professor of Computer Science, Dept. of Computer Science, State University of West Georgia
Fall 2000– Fall 2003	Lecturer, Computer Science Dept. of Computer Science and Engineering, University at Buffalo.
August 2001	Instructor for New Horizons Introduction to Java Programming (industry training) course.
Summer 2000	Summer Lecturer, Computer Science Dept. of Computer Science and Engineering, University at Buffalo.
Summer 2000	Short Course (corporate training) Instructor, DuPont Java course
Spring 2000	Full-time Visiting Lecturer, Dept. of Computer Science and Engineering, University at Buffalo
Spring 1999 - Fall 1999	Part-time Visiting Lecturer, Dept. of Computer Science and Engineering, University at Buffalo
Summer 1999	Summer Lecturer, Dept. of Computer Science and Engineering, University at Buffalo
Spring 1999 - Summer 1999	Short Course (corporate training) Instructor, Dept. of Computer Science and Engineering, University at Buffalo
Fall 1997 - Fall 1998	Teaching Assistant, Dept. of Computer Science and Engineering, University at Buffalo
Summer 1998	Summer Lecturer, Dept. of Computer Science and Engineering, University at Buffalo

TEACHING**Palm Beach State College**

<i>Semester</i>	<i>Course</i>	<i>Students</i>
Spring 2014	Microcomputer Applications (CGS1100) – 3 sections (fully online)	108
	Intro to Programming Logic (COP1000) using Python media computation	24
	Introductory Programming in C (COP1220)	9
	Android Programming (COP2660)	16
	SQL (COP2700)	18
	Server-side Programming (COP2840)	4
Fall 2013	Microcomputer Applications (CGS1100) – 5 sections	115
	Introductory Programming in C (COP1220)	23
	Android Programming (COP2660)	3

Broward College

<i>Semester</i>	<i>Course</i>	<i>Number of Students</i>
Summer 2013	Integrative Programming and Tech (COP4858) (hybrid online & fast track)	20
	IT Capstone (CIS4596) (hybrid online & fast track)	21
	Systems Integration & Architecture (CDA4411) (hybrid online & fast track)	13
Spring 2013	IT Capstone (CIS4596) (hybrid online & fast track)	24
	Systems Administration (CNT3604) (hybrid online & fast track)	29
	Intermediate C++ (COP1335) Independent Study	1
	Intro to Programming with Android (COP1661) (hybrid online & fast track)	26
	Database Concepts (COP3703) (hybrid online & fast track)	31
	Web Systems and Technologies (COP3847) (hybrid online & fast track)	21
	Systems Integration & Architecture (CDA4411) (hybrid online & fast track)	19
	Social and Professional Issues in IT (CIS4253) (hybrid online & fast track)	27
Fall 2012	Information Assurance and Security (CIS4361) (hybrid online & fast track)	17
	IT Capstone (CIS4596) (hybrid online & fast track)	26
	Intro to Programming with Android (COP1661) (hybrid online & fast track)	7
	Integrative Programming and Tech (COP4858) (hybrid online & fast track)	17

<i>Semester</i>	<i>Course</i>	<i>Number of Students</i>
Summer 2012	Computer Literacy (CGS1060C) (fully online)	12
	Networking (CNT3504) (hybrid online & fast track)	11
	Systems Administration (CNT3604) (hybrid online & fast track)	20
	Intro to C++ (COP1334C) (fully online)	21
	Web Systems and Technologies (COP3847) (hybrid online & fast track)	13
	Systems Integration & Architecture (CDA4411) (hybrid online & fast track)	12
Spring 2012	Social and Professional Issues in IT (CIS4253) (hybrid online & fast track)	23
	IT Capstone (CIS4596) – 2 sections (hybrid online & fast track)	23
	Intro to C++ (COP1334C) (fully online)	6
	Web Systems and Technologies (COP3847) (hybrid online & fast track)	25
	Computer Literacy (CGS1060C) (fully online)	25
	Information Assurance and Security (CIS4361) (hybrid online & fast track)	31
Fall 2011	Networking (CNT3504) (hybrid online & fast track)	25
	Web Systems and Technologies (COP3847) – 2 sections (hybrid online & fast track)	40
	Integrative Programming and Tech (COP4858) (hybrid online & fast track)	25
	Computer Literacy (CGS1060C) (fully online)	10
	Project Management (CIS3510) (hybrid online & fast track)	20
	Systems Administration (CNT3604) (hybrid online & fast track)	23
Summer 2011	Information Systems Control (ISM3320) (hybrid online & fast track)	11
	Computer Literacy (CGS1060C) (fully online)	23
	Project Management (CIS3510) – 2 sections (hybrid online & fast track)	59
	Systems Administration (CNT3604) – 2 sections (hybrid online & fast track)	55
	Intro to C++ (COP1334C)	14
	Spring 2011	

<i>Semester</i>	<i>Course</i>	<i>Number of Students</i>
Fall 2010	Computer Literacy (CGS1060C)	28
	Networking (hybrid online & fast track)	28
	Infrastructure Facilities Planning (CNT3702) – 2 sections (hybrid online & fast track)	40
	Web Systems and Technologies (COP3847) (hybrid online & fast track)	12
Spring 2010	Computer Literacy (CGS1060C) – 3 sections	90
Fall 2009	Computer Literacy (CGS1060C) – 4 sections	120
Spring 2009	Computer Literacy (CGS1060C) – 3 sections	70
	Intro to C++ (COP1334C)	16
	Intro to Computer Programming (COP1000C) – Python	10
	Adobe Flash (CTS2523C)	10
Fall 2008	Computer Literacy (CGS1060C) – 3 sections	68
	Intro to C++ (COP1334C) – 2 sections	22
	Programming in Java (COP2800C)	12
	Independent Study Sun Advanced Java (COP2805C)	1
Summer 2008	Intro to C++ (COP1334C) – 2 sections	21

St. Thomas University

<i>Semester</i>	<i>Course</i>	<i>Number of Students</i>
Spring 2008	Microcomputer Applications (CIS205)	75
	Advanced Java Programming (CIS310)	2
Fall 2007	Intro to Object-Oriented Design & Programming 1 (CIS140)	13
	Microcomputer Applications (CIS205)	50
	Computer Hardware Fundamentals (CIS410)	7
Spring 2007	Intro to Object-Oriented Design & Programming 2 (CIS141)	3
	Microcomputer Applications (CIS205)	50
	Data Structures (CIS360)	2
Fall 2006	Intro to Object-Oriented Design & Programming 1 (CIS140)	16
	Microcomputer Applications (CIS205)	48
	Problem Solving Through Computer Game Creation	6
Spring 2006	Intro to Object-Oriented Design & Programming 2 (CIS141)	5
	Microcomputer Applications (CIS205)	25
	Design and Implementation of 3D Games (CIS321)	4
	Programming Paradigms (CIS370)	4
Fall 2005	Intro to Object-Oriented Design & Programming 1 (CIS140)	18
	Advanced Java Programming (CIS310)	7
	Design and Implementation of 2D Games (CIS320)	22
	Computer Hardware Fundamentals (CIS410)	11

State University of West Georgia

<i>Semester</i>	<i>Course</i>	<i>Number of Students</i>
Spring 2005	Computers and Society (CS1020S01&S02)	467
	Introduction to Appl Software Dev II (CS3212)	20
Fall 2004	CS1 Studio (CS1301S03)	19
	Introduction to Appl Software Dev I (CS2311)	36
	CS6252 Web Technologies II	8
Spring 2004	CS1 Studio (CS1301S06)	30
	CS2 Studio (CS1302S02)	4
	Computing Capstone (CS4982)	8

University at Buffalo

<i>Semester</i>	<i>Course</i>	<i>Number of Students</i>	<i>Supervised Teaching Assistants</i>
Fall 2003	Introduction to Computer Science II for non-majors (CSE114A)	44	2
	Introduction to Computer Science I (CSE115C&D)	129	8
Spring 2003	Introduction to Computer Science I (CSE115A&C)	115	7
	Introduction to Computer Science II (CSE116A/504)	60	4
	Introduction to Programming Languages, (CSE305)	66	2
Fall 2002	Introduction to Computer Science I (CSE115A&E)	141	8
	Introduction to Programming Languages, (CSE305)	97	3
Spring 2002	Introduction to Computer Science I (CSE115A,B&C)	267	8
	Introduction to Computer Science II (CSE116C)	66	4
Fall 2001	Introduction to Computer Science I (CSE115B)	99	10
	Introduction to Computer Science II (CSE116A&B)	116	4
Spring 2001	Introduction to Computer Science I (CSE115A&B)	210	6
	Introduction to Computer Science II (CSE116C)	77	6
Fall 2000	Introduction to Computer Science II for non-majors (CSE114A&B)	79	2
	Introduction to Computer Science I (CSE115DD)	161	12
Summer 2000	Introduction to Computer Science II (CSE116)	39	1 (grader)
	Introduction to Programming Languages, (CSE305)	38	1 (grader)
	Object-Oriented Programming in Java (short course held on-site at DuPont)	12 (capacity)	
Spring 2000	Introduction to Computer Science I for non-majors (CSE113B&C)	182	8
	Introduction to Computer Science I (CSE115C)	144	7

<i>Semester</i>	<i>Course</i>	<i>Number of Students</i>	<i>Supervised Teaching Assistants</i>
Fall 1999	Introduction to Computer Science I for non-majors (CSE113D)	101	4
Summer 1999	Introduction to Computer Science I (CSE115)	29	1 (grader)
	Introduction to Programming Languages (CSE305)	31	1 (grader)
	Object-Oriented Programming in C++ (short course for industry professionals)	20 (capacity)	
Spring 1999	Introduction to Computer Science I (CSE115C)	59	4
	Object-Oriented Programming in C++ (short course for industry professionals)	20 (capacity)	
Summer 1998	Introduction to Programming Languages (CS305)	29	1 (grader)
	Object-Oriented Programming in C++ (short course for industry professionals)	20 (capacity)	

SERVICE

Palm Beach State College

- Added "*Cloud Computing*" components to both the SQL and Server-side Programming classes.
 - Received \$5,200 in Amazon Education grants to use "*Cloud Computing*" in the classroom.
- Member (the only faculty) of the CAPTURE grant-writing team, a joint project among Palm Beach State College, Florida Atlantic University, and Broward College to increase the number of Bachelors graduates in computer science. Grant is to be submitted at the beginning of February.
 - This included representing Palm Beach State in meeting with Florida Atlantic University's Computer Science Dean, Chair, and Faculty to create an articulation agreement for computer science associate students.
- Reviewed and improved official course outlines for COP2700: SQL and COP2822: Website Design.
- Member Computer Science hiring committee.
- Presenting a Professional Teaching and Learning Community workshop on income inequality.
- Created budget and proposal for new technology and new programs.

Broward College

- Added "*Cloud Computing*" components to both IT Capstone and Systems Administration classes
 - Received \$10,000 in Amazon Education grants to use "*Cloud Computing*" in the classroom
- Developed, tested and taught "*Ethical Hacking*" labs, using BackTrack, MetaSploit, Snort, and ZenMap for the Information Assurance and Security (CIS4253) class
- Developed and taught the IT Capstone course. In this course, BAS IT students complete "real-world" projects for College-wide clients, in **only 8 weeks**, using Agile techniques, Git, Trello and Amazon EC2 services. The classes have been successful in completing projects that have been deployed throughout campus and are in use by the various clients.

- Produced various instructional videos posted both in BlackBoard/D2L and on YouTube on a variety of technical topics related to course instruction. The YouTube videos are beginning to gather a global following.
- Developed the official course shells for a number of BAS IT classes, originally in BlackBoard and then converted them to D2L, including
 - Web Systems and Technologies (COP3847)
 - Information Assurance and Security (CIS4361)
 - Information Systems Control (ISM3320)
 - Integrative Programming Techniques (COP4858)
 - Social and Professional Issues in IT (CIS4253)
 - Systems Administration (CNT3604)
- Developed official course shell for fully online Intro to C++ (COP1334C) class
- Developed and taught pilot course in Android mobile application development, Intro to Programming with Android (COP1661)
- Member of LEEO Project, a joint project among Broward College, Broward County schools and Citrix for technology education in middle and high schools
- Served as member of search committees including: BAS Dean Search Committee, BAS Supervision and Management Faculty Committee, BAS IT Faculty Search
- Served as Chair of the BAS IT/Computer Science Faculty Search Committee
- Wrote the job ad for the BAS IT Faculty position
- Served as faculty advisor for the Anime Club
- Served on the SACS QEP Committee
- Served as on the BAS Advisory Board
- Served as member of the BAS IT/TM Textbook Committee
- Led an initiative to modify pre-requisites of BAS IT courses for increased student success and better knowledge alignment which was passed by Curriculum Committee
- Collaborated with College and Campus IT, along with outside network consultants on new network security configuration. Tested lab software for network configuration.
- Installed and tested software for the Computer Science lab images
- Invited Member, Bachelors of Applied Science Information Technology and Technology Management Curriculum Writers Committee
- Faculty Technology Mentor
- Assisted with Java and Advanced Java curricular reviews

St. Thomas University

- Author, CS and CIS Program Review
- Participant, STU Digital Initiative
- Member, Institution Review Board
- Installed and maintained CS/CIS program Moodle course management server and wiki

- Redeveloped CIS205: Microcomputer Applications curriculum to include more modern content including podcasting, photo manipulation, and digital video editing.
- Developed (and taught)
 - CIS140: Intro to Object-Oriented Design & Programming 1
 - CIS141: Intro to Object-Oriented Design & Programming 2
 - CIS320: Design and Implementation of 2D Games
 - CIS321: Design and Implementation of 3D Games
 - CIS370: Programming Paradigms
 - CIS257A: Problem-Solving Through Computer Games
- Program Coordinator for Computer Science and Computer Information Systems
- Member, Institute for Technology Transition Team
- Member, University Technology Governance Committee
- Co-authored joint STU and Rochester Institute of Technology NSF CCLI (Phase 2) grant proposal
- Participant, St. Thomas University ePortfolio grant

State University of West Georgia

- Chair, Service course curriculum committee
- Undergraduate curriculum committee
- CS1/2 curriculum committee

University at Buffalo

- Organizer for UB Preview Day
- Founded and managed the CS1 Undergraduate TA program where undergrads who recently took CS1 were brought in to TA the course
- Undergraduate curriculum committee 9/2002 – 12/2003 Undergraduate affairs committee
- Modified CSE114 curriculum to better suit needs of non-major student population
- Developed the Department's Java-based objects-first CS1 and CS2 curriculum

Professional Service

2008	Reviewed for Cay Horstmann's, Java For Everyone.
2006	Reviewer for SIGCSE 2007.
	Reviewer for OOPSLA 2006.
2005	Reviewer for OOPSLA 2005.
	Reviewer for 2006 ACM SIG Computer Science Education Conference.
2004	National Science Foundation Panelist
	Reviewer for 2005 ACM SIG Computer Science Education Conference.
	Reviewer for Computer Science Education Journal Special Issue on Psychology of Programming

- 2003 Reviewer for 2004 ACM SIG Computer Science Education Conference.
Reviewer for *Consortium for Computing in Small Colleges Eastern Division (CCSCE) 2003 Conference*
- 2002 Review of Tucker, A. & Noonan, R. *Programming Languages: Principles and Paradigms*. McGraw-Hill.

Acknowledged review of Horstmann, C. (2003). *Object-Oriented Design and Patterns*. Wiley.
Reviewer for 2003 ACM SIG Computer Science Education Conference.
Reviewer for 7th Annual Conference on Innovation and Technology in Computer Science Education.
- 2001 Acknowledged review of Riley, D. (2002). *The Object of Java*. Addison-Wesley.

GRANTS

Title	Multiple Amazon AWS Education Grants
PI	Phil Ventura
Source	Amazon
Amount	\$15,000

Title	Augmenting the St. Thomas University Digital Initiative
PI	Phil Ventura
Source	Robert M. Sullivan Award, St. Thomas University
Amount	\$3,000
Term	6/1/07-5/30/08

Title	Investigation of Podcasting Technologies to Augment the Computing Classroom
PI	Phil Ventura
Source	Robert M. Sullivan Award, St. Thomas University
Amount	\$3,200
Term	6/1/06-1/1/07

Title	Object-oriented programming with class
PIs	Phil Ventura and Carl Alphonse
Source	UB Educational Technologies
Amount	\$6,400
Term	6/1/01-5/31/02

SUPERVISED STUDENTS

Dan Britt, Wes Fang, Rich Giomundo and Brooks Isoldi, undergraduates, working on enhancements to *QuickUML* including improved code generation abilities, reverse engineering of diagrams and iterative design.

Tim Rindfleisch, undergraduate, working on a Java physics engine for use by CS1 students. The package includes transfer of momentum, gravity and a partitioning system for efficient collision detection.

Eric Crahen, Masters student, worked on initial development, under the *Object-oriented programming with class* grant, of *QuickUML* – a UML class diagram and code generation tool.

RESEARCH INTERESTS

- Computer Science Education
- Pedagogy of Object Orientation
- Objects-first introductory CS curricula
- Tools for supporting CS Education
- Casual Education Games Design
- Computing Technology in Education
- Women in Technology & Science
- Involvement of Undergraduates in CS Education
- Object-Oriented Programming and Design
- Design Patterns

REVIEWED PUBLICATIONS

- Egert, C., Bierre, K., Phelps, A., and Ventura, P. (2006). Hello, M.U.P.P.E.T.S.: Using a 3D collaborative virtual environment to motivate fundamental object-oriented learning. In *Companion To the 21st ACM SIGPLAN Conference on Object-Oriented Programming Languages, Systems, and Applications* (Portland, Oregon, USA, October 22 - 26, 2006). OOPSLA '06. ACM Press, New York, NY, 881-886.
- Decker, A., Ventura, P.R., & Egert, C. (2006). *Through the looking glass: Reflections on using undergraduate teaching assistants in CS1*. Paper presented at SIGCSE 2006. Houston, Texas.
- Bierre, K., Ventura, P.R., Phelps, A., & Egert, C. (2006). *Motivating OOP by blowing things up: An exercise in cooperation and competition in an introductory java programming course*. Paper presented at SIGCSE 2006. Houston, Texas.
- Ventura, P.R. (2005). Identifying predictors of success for an objects-first CS1. *Computer Science Education*, 15(3), 223-243.
- Ventura, P.R., Egert, C., & Decker, A. (2004). *Ancestor worship in CS1: On the primacy of arrays*. Paper presented at OOPSLA 2004 Educator's Symposium. Vancouver, British Columbia.
- Ventura, P.R. & Ramamurthy, B. (2004). *Wanted: CS1 students. No experience required*. Paper presented at SIGCSE 2004. Norfolk, Virginia.
- Decker, A. & Ventura, P. R. (2004). *We claim this course for computer science. A non-mathematician's discrete structures course*. Paper presented at SIGCSE 2004. Norfolk, Virginia.
- Alphonse, C. G. & Ventura, P. R. (2003). *Using graphics to support the teaching of fundamental object oriented principles*. Paper presented at OOPSLA 2003 Educators' Symposium. Anaheim, California.
- Ventura, P. R. (2003). *On the origins of programmers: Identifying predictors of success for an objects-first CS1*. Paper presented at the SIGCSE03 Doctoral Consortium, Reno, Nevada.
- Alphonse, C. G., & Ventura, P. R. (2002). *Object orientation in CS1-CS2 by design*. Paper presented at the 7th Annual Conference on Innovation and Technology in Computer Science Education, Aarhus, Denmark.
- Ventura, P. R. (2002). *Objects-first CS1 not considered harmful: An empirical investigation of CS1*. Paper presented at the SIGCSE02 Doctoral Consortium, Covington, Kentucky.
- Ventura, P. R., & Alphonse, C. G. (2001). *Teaching OOD and OOP through Java and UML in CS 1 and 2*. Paper presented at the Fifth Workshop on and Tools for Assimilating Object-Oriented Concepts, OOPSLA01, Tampa, Florida.

WORKSHOPS

- Presenter/Member, Organizing Committee for 3rd "Killer" Examples for Design Patterns and Objects
 First held at OOPSLA 2004. Vancouver, British Columbia.
- Presenter, *Teaching Design Patterns in CS1/CS2* held at SIGCSE 2004. Norfolk, Virginia.

Presenter/Member, Organizing Committee for 2nd “Killer” Examples for Design Patterns and Objects First held at OOPSLA 2003. Anaheim California.

Presenter/Member, Organizing Committee for “Killer Examples” for Design Patterns and Objects First held at OOPSLA 2002.

AWARDS

- 2013 Broward College Service Learning Award for creating IT Capstone experience which had students work on real-world projects for non-profit organizations in Broward County
- 2003 ACM SIGCSE03 Student Research Competition (Graduate division), third place, for dissertation work. One of 24 accepted to participate. Only finalist to be working in computer science education research.

PROJECTS

- 2002 **Office Hours Tracker** – a Java-based application to track student usage patterns of office hours for both faculty and students for use in dissertation research. The data are stored in an Oracle database. (Java, SQL, Oracle)
- 2001 **CS1 Timesheet** – A Perl CGI script allowing students to record time spent on their lab assignments. The data are used for various research purposes. (Perl, CGI)
- 2000 **Electronic Gradebook** – A Perl CGI script that communicates with a Java backend to allow students to view their own grades securely in real-time. The Java backend reads directly from an Excel spreadsheet under revision control. The Electronic Gradebook is being used by several UB CSE faculty. (Perl, CGI, Java, RCS)
- 2000 **Zooming in on Technology** – Implemented a Java applet for a grant dealing with showing multiple levels of a program for use in CS0 and other classes. (Java)
- 2000 **UML Sequence Diagram Tool** – Designed and implemented a Java program that allows users to construct UML sequence diagrams. (Java, UML)
- 1999 **Course Recommender Expert System** – Designed and implemented an expert system for recommending courses to students in the BS program. The system was built on the Semantic Networks Processing System (SNePS). (SNePs, Lisp)
- 1998 **Submit Inspector** – a Perl CGI script that allows students to view their online submit directories including submission times and archived file contents. Submit Inspector is currently being used by a number of UB CSE faculty. (Perl, CGI, HTML)
- 1997 **VRML Boids** – Designed, managed a development team, and implemented a Java External Authoring Interface (EAI) based implementation of Craig Reynold’s Boids algorithm to control VRML objects. I conceived this project as an alternative to a standard Computer Graphics final project. (Java, EAI, VRML)
- 1997 **Fuzzy logic controller evolved using genetic algorithms for “Penny” Robot** – Designed and implemented a C++ program to create a controller for a stationary arm-based desktop robot. (C++)

NON-ACADEMIC EXPERIENCE

- 1997 **Summer Intern, Bethlehem Steel, Galvanized Products Division** – developed Visual Basic applications to graphically display real-time information for line operators of “Pickler” and galvanizing lines. Implemented LUP-Decomposition algorithm in Vax Pascal for galvanizing line.
- 1997 **SportsTracker** – Designed and implemented a Microsoft Access application for the managing of student sports data for a local school.