

Michael Hewner

CONTACT INFORMATION	(812) 665-4454 hewner@rose-hulman.edu http://hewner.com	5500 Wabash Ave. Terre Haute, IN 47803
INTERESTS	Computer Science Education and Computer Science Education Research	
EDUCATION	Georgia Tech , Atlanta, Georgia Ph.D., Human-Centered Computing, December 2012 <ul style="list-style-type: none">• Area of Study: Computer Science Education• Dissertation Topic: <i>Student Conceptions about the Field of Computer Science</i>• Adviser: Professor Mark Guzdial• Higher Education Teaching Certificate Level A University of Illinois at Urbana-Champaign , Urbana, Illinois M.S., Computer Science, May 2003 <ul style="list-style-type: none">• Area of Study: Software Engineering, Object-Oriented Programming• Thesis Topic: <i>Implementing the Tagged Integer Optimization on the .NET Virtual Machine</i>• Adviser: Professor Ralph Johnson B.S., Computer Science, December 2001	
INSTRUCTOR OF RECORD	Rose-Hulman Institute of Technology , Terre Haute, Indiana <i>Assistant Professor</i> CSSE 220: Intro to Object-Oriented Programming (freshman level course) <ul style="list-style-type: none">• Topics: java, object oriented design, basic algorithms and data structures• Mixed instruction, in class programming, and projects CSSE 332: Operating Systems (sophomore/junior level course) <ul style="list-style-type: none">• Topics: threading, memory management, scheduling, etc.• Lecture-based course with C programming assignments and large project CSSE 290: Advanced GIT (1 credit elective course) <ul style="list-style-type: none">• Topics: git internals, merging/rebasing, branch design• Useful course that tends to get a lot of student interest CSSE 372: Software Project Management (junior level course) <ul style="list-style-type: none">• Topics: software processes, estimation, risk management, planning• Discussion-oriented course CSSE 403: Programming Language Paradigms (senior level course) <ul style="list-style-type: none">• Survey of interesting languages: Prolog, Erlang, Elm• Project-oriented course, but also regular lectures Also Taught <ul style="list-style-type: none">• CSSE375: Software Construction and Evolution• CSSE333: Databases Spring 2013 – Present	

- CSSE290: Cyberdefense Competition
- CSSE332: Software Quality Assurance
- CSSE497, CSSE498: Senior Project
- CSSE376: Software Quality Assurance

Duke University, Durham, North Carolina

Visiting Instructor

Fall 2011 – Spring 2012

CompSci 100: Data Structures (undergraduate course)

- Topics: algorithm design, objects, recursion, linked-lists, trees
- Lecture-based course with programming assignments and exams
- Taught 150+ students with another instructor in Fall, taught alone in Spring
- Developed lectures, wrote exams

CompSci 108: Software Engineering (undergraduate course)

- Topics: object-oriented design, programming large systems
- Project-oriented course, but also regular lectures
- Taught 40+ students, with another instructor in Fall, taught alone in Spring
- Developed lectures, developed projects and grading criteria

University of Washington, Seattle, Washington

Visiting Instructor

Summer 2008

CSE143: Computer Programming II (undergraduate course)

- Topics: algorithm design, objects, recursion, linked-lists, trees
- Taught 80+ students
- Developed lectures, exams, managed TAs

OTHER TEACHING
EXPERIENCE

Indian Institute of Technology Bombay, Mumbai, India

Visiting Assistant Professor

Summer 2014

Qualitative Methods in Engineering Education (graduate seminar)

- Topics: interviewing, grounded theory, content analysis
- Also advised students on research topics/approaches
- 20 students

Governor's Honors Program, Valdosta, Georgia

A competitive 4-week summer program for high school juniors sponsored by the state of Georgia

Instructor

Summer 2011, Summer 2012

Introductory Delphi Programming (high school course)

- Topics: variables, functions, GUIs, Monte Carlo simulations, complex math
- 20 students

Intro to Automata Theory (high school course)

- Topics: different types of automata, incomputability, Turing-Church Thesis
- 15 students

Fractals (high school course)

- Topics: Iterated function systems, fractal dimension, chaos
- 15 students

PUBLICATIONS

- M. Hewner and S. Mishra. *When Everyone Knows CS is the Best Major: Decisions about CS in an Indian context.* presented at Twelfth International Computing Education Research Workshop (ICER 2016). Melbourne, Australia, September 8-12, 2016.
- M. Hewner. *How Undergraduates Make Course Choices.* presented at Tenth International Computing Education Research Workshop (ICER 2014). Glasgow UK, August 11-14, 2014.
- M. Hewner. *Undergraduate Conceptions of the Field of Computer Science.* presented at Ninth International Computing Education Research Workshop (ICER 2013). San Diego, CA USA, August 12-14, 2013.
- M. Hewner and M. Guzdial. *How CS majors select a specialization.* presented at Seventh International Computing Education Research Workshop (ICER 2011). Providence, RI USA, August 8-9, 2011.
- M. Hewner and M. Guzdial. *What Game Developers Look for in a New Graduate: Interviews and Surveys at One Game Company.* presented at ACM Technical Symposium on Computer Science Education (SIGCSE 2010). Milwaukee, WI USA, March 10-13, 2010.
- A. Bruckman, M. Biggers, B. Ericson, T. McKiln, J. Dimond, B. DiSalvo, M. Hewner, L. Ni, S. Yardi. *'Georgia computes!': improving the computing education pipeline.* presented at ACM Technical Symposium on Computer Science Education (SIGCSE 2009). Chattanooga, TN USA, March 4-7, 2009.
- M. Hewner and M. Knobelsdorf. *Understanding Computing Stereotypes with Self-Categorization Theory.* presented at Koli Calling International Conference on Computer Science Education (Koli Calling 2008). Koli National Park, Finland, November 13 - 16, 2008.
- M. Hewner and M. Guzdial. *Attitudes about Computing in Postsecondary Graduates.* presented at Fourth International Computing Education Research Workshop (ICER 2008). Sydney, Australia, September 6-7 2008.

INDUSTRY EXPERIENCE

Software Engineering Professionals, Carmel, IN

Programmer

May 2018–August 2018

- Wrote C# and Javascript for large work tracking web application

Rose–Hulman Ventures, Terre Haute, IN

Tech Lead

May 2016–July 2016

- Manager and technical adviser for two teams of freshman CS students doing contract software development
- Experimental version for freshman, part of a mixed summer internship/instruction partnership with Rose-Hulman Ventures

Indigo Bioautomation, Indianapolis, IN

Programmer

June 2015–August 2015

- Wrote Ruby, Java code for mass spectrometer analysis toolchain

Groupon, San Francisco, CA

Programmer

June 2013–August 2013

- Wrote Objective-C (Ipad client-side) and python (django server-side) for Bread-crumbs point-of-sale app

Zipper Interactive, Seattle, Washington

Video Game Programmer

May 2009–August 2009

- Programmed C++ for two Playstation 3 first person shooter titles
- Interviewed developers about what they for in a programmer hire

Amazon.com, Seattle, Washington

Software Engineer

June 2003–June 2006, January 2007–July 2007

- Technical Lead for a 7 person team, coded many projects in C++ and Perl
- Promoted after 1.5 years to SDE II
- Developed “Ninja Coder” programming riddle project to attract job candidates
- Interviewed 100+ developer candidates

SERVICE

- Rose-Hulman Rules and Discipline Committee, various department hiring committees
- Paper reviewer for ICER, SIGCSE, and TOCE
- Adviser for CS honor society, Computer Security Club, Boardgame club
- Coach of Duke Programming Competition Team (Fall 2011 – Spring 2012)
- Student representative on HCC Ph.D. Procedure Review Committee (Spring 2011)

REFERENCES

J.P. Mellor

Email: mellor@rose-hulman.edu; Phone: 812-877-8085

- Head of Dept. of Computer Science and Software Engineering, Rose-Hulman
- ◇ *Current boss*

Mark Guzdial

Email: guzdial@cc.gatech.edu; Phone: 404-894-5618

- Professor, Georgia Tech
- ◇ *Dissertation adviser*

Owen Astrachan

Email: ola@cs.duke.edu; Phone: (919) 660-6522

- Professor of the Practice, Duke University
- ◇ *Co-Instructor in Data Structures Course*

Sally Fincher

Email: s.a.fischer@kent.ac.uk; Phone: +44 (0)1227 824061

- Professor, University of Kent
- ◇ *Can speak to my qualifications as a CS Education Researcher*