

ROSANNA HEISE

Lecturer in Computing Science ♦ Augustana Campus ♦ University of Alberta
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EDUCATION

Master of Science in Computer Science (1989)

University of Calgary, Calgary, AB

Thesis Title: *Demonstration Instead of Programming: Focussing Attention in Robot Task Acquisition.*

DOI: <http://dx.doi.org/10.5072/PRISM/31301>

Bachelor of Science in Mathematics, First Class Honors (1986)

University of Alberta, Edmonton, AB

Graduate Studies in Computer Science (1990-1994)

University of Calgary, Calgary, AB

WORK HISTORY

Lecturer in Computing Science and Mathematics (2008 – ongoing)

Augustana Campus, University of Alberta, Camrose, AB

Assistant Professor of Computing Science (1994 – 2002)

Acting Department Chair, Mathematics and Physics (1997 – 1998)

Augustana University College, Camrose, AB

Teaching and Research Assistant (1987 – 1989)

University of Calgary, Department of Computer Science, Calgary, AB

Sessional Instructor of Computing Science and Mathematics (1986 – 1987)

Camrose Lutheran College, Camrose, AB

Teaching Assistant (1984 – 1986)

University of Alberta, Department of Mathematics, Edmonton, AB

Computer Technician (1985)

Hardisty General Hospital, Hardisty, AB

TEACHING EXPERIENCE (LAST 10 YEARS)

Computing Science

AUCSC 110 Introduction to Computing Science

AUCSC 111 Introduction to Computational Thinking

AUCSC 112 Data Structures and Algorithms

AUCSC 220 Software Engineering I

AUCSC 250 Computer Organization and Architecture I

AUCSC 310 Algorithm Design and Analysis
AUCSC 320 Software Engineering II
AUCSC 350 Computer Organization and Architecture II
AUCSC 370 Programming Languages
AUCSC 401 Professional Practicum I

Mathematics

AUMAT 101 Preparation for Calculus
AUMAT 107 Higher Arithmetic

PUBLICATIONS

R. Heise. 1993. Programming robots by example. *International Journal of Intelligent Systems* 8, 6, 685-709.
DOI: <https://onlinelibrary.wiley.com/doi/abs/10.1002/int.4550080603>

I.H. Witten, B.A. Macdonald, D.L. Mulsby, and **R. Heise.** 1992. Programming by example: the human face of AI.
AI & Society 6, 2, 166-180. DOI: <https://doi.org/10.1007/BF02472779>

R. Heise and B.A. Macdonald. 1990. Robot program construction from examples. In A.F. Smeaton and G. McDermott (eds) *AI and Cognitive Science '89. Workshops in Computing*. Springer, London. DOI: https://doi.org/10.1007/978-1-4471-3164-9_16

R. Heise and B.A. Macdonald. 1989. Quaternions and motion interpolation: A tutorial. In R.A. Earnshaw and B. Wyvill (eds) *New Advances in Computer Graphics*. Springer, Tokyo. DOI: https://doi.org/10.1007/978-4-431-68093-2_14

R. Heise and B.A. Macdonald. 1988. Kinematics of an elbow manipulator with forearm rotation: The excalibur. Research Report 88/334/36, University of Calgary. DOI: <http://dx.doi.org/10.5072/PRISM/30892>

UNIVERSITY SERVICE

Design of many of our Computing Science Courses (2008 – ongoing)
AUCSC 110, AUCSC 111, AUCSC 112, AUCSC 220, AUCSC 320, AUCSC 370

Help faculty and students with computing issues (2008 – ongoing)
Everything from fixing printer jams, using word processors, and information about what to consider when purchasing a computer

Faculty advisor to Campus Computing Club (2017 – ongoing)
New club formed on campus. President is Peter Zeng

Work with Learning And Beyond (LAB) on placements containing a computing component (2017 – ongoing)
Consulting for AUCSC 320 and AUCSC 401 placements, as well as for some AUCL 360/361 placements.
Met with several external clients (Diane McLaren – Camrose Adult Learning Council, Marg – Marg's Computers, Trish and Reece James – Camrose Open Door Association)

Augustana Plan for the Integration of Information Literacy (APIIL) (2018 – ongoing)
Several meeting with librarians; incorporating such activities into AUCSC 350

Work with eClass staff to try to bring Virtual Programming Lab (VPL) to campus (2018 – ongoing)

VPL would make it easier to increase our class sizes, as the marking of computer programs is the biggest bottleneck. VPL would not completely replace the manual process, but would go a long way towards helping with the process.
Contacts: Atridad Lahiji and Chris

ATS Taskforce (2018)

Input on document to determine the ATS staff guidelines at Augustana

Renovations to Senior Computing Lab (2018)

Several meetings about issues in the lab, surveyed students, created drawing of how we would like the lab to look

Grant from Innovation Fund in AUCSC 320, taught in Winter 3-week term (2018)

Incorporated a physical activity component into a course that otherwise involved much seating for the completion of a large software project – modelled healthy lifestyle

Environment, Health and Safety (EHS) certificate (2018)

Discussed safety concerns with Department chair
Instigated plugins for tables in library computer classroom (2011)

Reference letters for students (2017 – 2018)

Eshna Sengupta (Grad School), Nathan Wisla (Job and Grad School), Nathan Nobert (Scholarship), Deborah Etsenake (Jobs), Fatima Bin Sumait (Scholarship), Ahnaf Ahmed (Scholarship)

Input on hiring new Computing Science faculty member (2017)

Arranged for teaching in my AUCSC 112 class
Submitted written feedback

Supervision of Teaching Assistants for AUCSC 111 (2015 – 2017)

Wrote and implemented proposal for need of Teaching Assistants in first year Computing Science

Committee to make AUCSC efficient (2014)

With Jonathan Mohr, Bill Hackborn and Stephanie Husby

Attend convocations (various years)

Help with music concert Front of House (various years)

Also a volunteer with the Kodaly convention at Augustana (2017)

CAREER-RELATED COMMUNITY SERVICE

Messiah Lutheran Church (2013 – ongoing)

Audio-Visual Technician, for TV broadcast

About Time Productions (ATP) (2018)

Resolve hardware issues with their printer

Camrose Music Festival (2015 – 2018)

Computer Operator and help-provider regarding issues related to their computing needs

Camrose and District Soccer (2005 – 2016)

Coach (helps me with teaching). Have my Community Coaching card.