Chen Huo

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Employment

2017–present	**Assistant Professor**, Shippensburg University of PA .... Shippensburg, PA Department Chairperson (2019–present)
2012–2017	**Research/Teaching Assistant**, University of Delaware .... Newark, DE

Education

2012–2017	**University of Delaware** .... Newark, DE Ph.D. in Computer Science (Software Engineering) Thesis title: Automated Techniques for Improving the Quality of Existing Test Suites Advisor: James Clause
2010–2012	**University of Northern Iowa** .... Cedar Falls, IA M.S. in Computer Science
2006-2010	**Shanghai Jiao Tong University** .... Shanghai, China B.S. in Electrical and Computer Engineering

Research Interests

Areas: Software Testing, Program Analysis, Debugging

I Teaching

A Courses Taught

A.1 Summary at Shippensburg University

The following shows numbers of sections taught in each semester. The 3-hour department chair release started in Fall 2019.

	F17	S18	F18	S19	F19	S20	F20	S21	F21	S22	F22	S23
CMPE320										2		2
SWE200	2		2		2		2		2		2	
SWE300		1		1		1						
SWE305†										1		
SWE415												1
ENGR300								2★				
ENGR120†		2		2		2	1	2				
CSC493†		I	1		I							
CSC106		1										
CSC563‡	1											
CSC559‡					1		I					

† Newly developed course
‡ Graduate level
★ Co-taught with Dr. Naser
I Individualized study or Independent study

A.2   Undergraduate Level

(1) Interdisciplinary Development (SWE415), 4 credit hours

(2) Functional Data Structures (SWE305), 4 credit hours

(3) Operating Systems (CMPE320), 4 credit hours

(4) Engineering Seminar III (ENGR300), 1 credit hour

(5) Programming for Engineers (ENGR120), 3 credit hours

(6) Crafting Quality Code (SWE300), 4 credit hours

(7) Design Patterns (SWE200), 4 credit hours

(8) Selected Topics in Computer Science — Software Testing (CSC493), 4 credit hours

(9) Computer Science I Lab for Non-Majors (CSC106), 1 credit hour

A.3   Graduate Level

(1) Agile Methods (CSC559), 3 credit hours

(2) Software Metrics and Process Management (CSC563), 3 credit hours

B   Individual Student Guidance

B.1   Undergraduate Independent Study Students

(1) Anthony Depaul: Fall and Spring 2021, Computer Science Senior Research

(2) Kanza Amin and Ekaterina Pinchuk: Fall 2020, Agile Software Methods

(3) Nick Starkey: Spring 2020, Design Patterns

(4) Amity Brown: Spring 2019, Design Patterns

(5) Joshua Jackson: Spring 2019, Programming in Haskell

(6) Christopher Boyer: Spring 2018, presented a poster *Botception: A Testing Framework for Discord Bots* at the 33rd Annual Conference of The Pennsylvania Association of Computer and Information Science Educators (PACISE).

C   Teaching Assistant

C.1   University of Delaware

(1) Algorithm Design and Analysis (CISC621): Spring 2017

(2) General Computer Science for Engineers (CISC106): Fall 2016

(3) Introduction to Computer Science (CISC108): Spring 2016, Fall 2014

(4) Data Structures (CISC220): Spring 2015

(5) Introduction to Algorithm (CISC320): Fall 2015

(6) Formal Methods in Software Engineering (CISC414, CISC614): Fall 2015

C.2   University of Northern Iowa

(1) Data Structures (CS1520): Spring 2011, Spring 2012

(2) Introduction to Computing (CS1510): Fall 2010, Fall 2011

(3) Web Development: Client-Side Coding (CS1100): Fall 2011

II   Service

A   Professional activities

A.1   Conference organization activities

(1) Chair of the Programming Contest Session for the 33rd Annual Conference of The Pennsylvania Association of Computer and Information Science Educators (PACISE), 2018.

A.2   Membership and activities in professional societies

- Member of the Association of Computing Machinery (ACM)
- Member of the ACM Special Interest Group on Software Engineering (SIGSOFT)
- Member of the Institute of Electrical and Electronics Engineers (IEEE) Computer Society

- Member of the Occupational Advisory Committee (OAC) for Computer Programming at Cumberland Perry Area Career and Technology Center (CPACTC) since 2019

B   On-campus activities

B.1   University committee activities

(1) Member of the University Conduct Board: 2022–

(2) APSCUF representative to the University Curriculum Committee: 2022–

(3) Co-chair of the University Sabbatical Committee: 2019–2021.

(4) Member of the University General Education Council: 2019–2021.

(5) Member of the University Scholarship Committee: 2018–2019.

B.2   Department Chair

Became the chairperson of the Computer, Electrical, and Software Engineering Department since Fall 2019. Led the ABET accreditation process and the three programs (new accreditation for Electrical Engineering, others for renewal) in the department are accredited for the full 2022–2028 cycle.

B.3   Faculty Advisor

(1) Faculty advisor of the Programming Team of the Department of Computer Science and Engineering: 2017–present

(2) Faculty advisor of the University Table Tennis Club: 2021–present

B.4   Course Coordinator

(1) Computer Science I Lab (CSC106): 2017–present

(2) Web Programming (CSC434): 2017–present

(3) Signal and Systems (ELEC210): 2017–present

(4) Design Patterns (SWE200): 2017–present

(5) Crafting Quality Code (SWE300): 2017–present

(6) Large Scale Architectures (SWE400): 2017–present

(7) Interdisciplinary Development (SWE415): 2017–present

(8) Extreme Programming (SWE420): 2017–present

B.5   Academic Advisor

(1) 2017: Amity Brown, Zachary Davis, Ian Leiby, Chad Lewis, Taylor Arndt

(2) 2018: 36 students

(3) 2019: 34 students

(4) 2019: 50 students

(5) 2020: about 30 students

(6) 2021: about 30 students

(7) 2022: about 30 students

III   Honors and Awards

- CFEST Travel grant, $650, 2021

- Faculty-Led Research Fund grant, $780, 2020

- Academic Mentorship Award, Shippensburg University, 2019

- Miklausen-Likar Science Research Fund. $1500, 2018

- ACM SIGSOFT CAPS-GRAD Travel Fund, $1500, 2014

- University of Delaware Professional Development Award for Graduate Students, $500, 2014

IV   Research

A   Conference publications (refereed)

- Bradley Smith, Ahmed Rashed, and Chen Huo. Reading the lattice qcd form factors of the $\lambda b \rightarrow \lambda c$ transition using a c-code. *Journal of Physics G: Nuclear and Particle Physics*, 49(10):105001, aug 2022

- Chen Huo. Getting lazy and pure in code contests by using haskell. In *Proceedings of World Congress in Computer Science, Computer Engineering, and Applied Computing (to appear)*. Spring Nature, 2021. Acceptance rate: 22%

- Anthony Depaul and Chen Huo. Improving code readability by transforming loops to higher order function constructs. In *Proceedings of the 34th Annual Conference of The Pennsylvania Association of Computer and Information Science Educators (PACISE)*, 2020

- Austin Smale, Courtney Rush, and Chen Huo. Are unit tests good enough for design patterns? an empirical study. In *Proceedings of the 34th Annual Conference of The Pennsylvania Association of Computer and Information Science Educators (PACISE)*, 2019

- Chen Huo and James Clause. Interpreting coverage information using direct and indirect coverage. In *Proceedings of the 9th IEEE International Conference on Software Testing, Verification and Validation (ICST)*, pages 234–244, 2016. Acceptance rate: 27%

- Chen Huo and James Clause. Improving oracle quality by detecting brittle assertions and unused inputs in tests. In *Proceedings of the 22nd International Symposium on the Foundations of Software Engineering (FSE)*, pages 621–631, 2014. Acceptance rate: 22%

B Review work for technical journals and publishers

(1) Reviewer, ACM Special Interest Group on Computer Science Education, 2020

(2) Reviewer, The 35th Annual Conference of The Pennsylvania Association of Computer and Information Science Educators (PACISE), 2020

(3) Reviewer, ACM Special Interest Group on Computer Science Education, 2019

(4) Reviewer, The 34th Annual Conference of The Pennsylvania Association of Computer and Information Science Educators (PACISE), 2019

(5) Reviewer, The 33rd Annual Conference of The Pennsylvania Association of Computer and Information Science Educators (PACISE), 2018

(6) Reviewer, Multimedia Tool and Application, 2016