

## **Yumei Huo**

Professor of Computer Science  
College of Staten Island, City University of New York  
2800 Victory Boulevard, Staten Island, NY 10314  
Doctoral Faculty of Computer Science Graduate Center of CUNY  
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### **RESEARCH INTEREST**

High Performance Computation, Design and Analysis of Algorithms, Sequence and Scheduling, Computation and Complexity, Combinatorial Optimization, Operations Research, Machine Learning, Pattern Recognition

### **HIGHER EDUCATION**

New Jersey Institute of Technology(NJIT),  
**Ph.D in Computer Science** **2005**  
Dissertation: Some Topics on Deterministic Scheduling Problems

University of Science& Technology, Beijing (USTB)  
**M.S. in Computer Science** **2000**  
Thesis: Control Flow Analysis and Simulator Design for VLIW Architecture Microprocessor

University of Science & Technology, Beijing (USTB)  
**B.S. in Computer Science**; Minor: English in Science & Tech **1997**

### **WORKING EXPERIENCE**

City University of New York, College of Staten Island  
**Professor of Computer Science,** **September, 2018-present**

City University of New York, College of Staten Island  
**Associate Professor of Computer Science,** **January, 2011-August, 2018**

City University of New York, College of Staten Island  
**Assistant Professor of Computer Science, tenured** **September, 2010-December, 2010**

City University of New York, College of Staten Island  
**Assistant Professor of Computer Science, tenure-track** **September, 2005-September, 2010**

City University of New York, The Graduate Center  
**Doctoral faculty of Computer Science, tenure-track** **September, 2005-present**

### **REFEREED PUBLICATIONS**

#### **REFEREED ARTICLES**

- 1) Tan J., Y Gao, Z Liang, W Cao, MJ Pomeroy, Y Huo, L Li, MA Barish, A. F. abbasi, P. J. Pickhardt, "3D-GLCM CNN: A 3-dimensional gray-level co-occurrence matrix based CNN model for polyp classification via CT colonography", *IEEE Transactions on Medical Imaging*, accepted.

- 2) Huo. Y, "Parallel Machine Makespan Minimization Subject to Machine Availability and Total Completion Time Constraints", *Journal of Scheduling*, 22(4): 433-447, 2019.
- 3) Gao Y., J. Tan, Z. Liang, L. Li, Y. Huo, "Improved computer-aided detection of pulmonary nodules via deep learning in the sinogram domain", *Visual Computing for Industry, Biomedicine, and Art*, 2: 1-9, 2019.
- 4) Tan J., Y. Huo, Z Liang, L Li, "Expert knowledge-infused deep learning for automatic lung nodule detection", *Journal of X-ray science and technology*, 27(1), 17-35, 2019.
- 5) Tan J., L. Jing, Y. Huo, Y. Tian, O. Akin, "LGAN: Lung Segmentation in CT Scans Using Generative Adversarial Network", *CoRR abs/1901.03473* (2019).
- 6) Hall N.G., Y. Huo, B. Li, M. Pinedo, H. Zhao, "In memoriam: Dr. Joseph Leung", *J. Scheduling* 21(6): 579-580, 2018.
- 7) Huo, Y. and H. Zhao, "Two Machine Scheduling Subject to Arbitrary Machine Availability Constraints," *Omega*, 76: 128-136, 2018.
- 8) Huo, Y. and H. Zhao, "Total Completion Time Minimization on Multiple Machines Subject to Machine Availability and Makespan Constraints," *European Journal of Operational Research*, 243(2):547-554, 2015.
- 9) Huo, Y., Reznichenko B. and H. Zhao, "Minimizing Total Weighted Completion Time with Unexpected Machine Unavailability," *Journal of Scheduling*, 17(2): 161-172, 2014.
- 10) Fu, B, Huo, Y. and H. Zhao, "Coordinated Scheduling of Production and Delivery with Production Window and Delivery Capacity Constraints", *Theoretical Computer Science*, 422: 39-51, 2012.
- 11) Fu, B, Huo, Y. and H. Zhao, "Approximation Schemes for Parallel Machine Scheduling with Availability Constraints," *Discrete Applied Math*, 159: 1555-1565, 2011.
- 12) Huo, Y. and H. Zhao, "Bicriteria Scheduling Concerned with Makespan and Total Completion Time Subject to Machine Availability Constraints", *Theoretical Computer Science*, 412:1081-1091, 2011.
- 13) Huo, Y., J. Y-T. Leung and X. Wang, "Integrated Production and Delivery Scheduling with Disjoint Windows," *Discrete Applied Math*, 158:921-931, 2010.
- 14) Huo, Y. and J. Y-T. Leung, "Fast Approximation Algorithms for Job Scheduling with Processing Sets Restrictions", *Theoretical Computer Science*, 411: 3947-3955, 2010.
- 15) Huo, Y. and J. Y-T. Leung, "Parallel Machine Scheduling with Nested Processing Set Restrictions," *European Journal of Operational Research*, 204:229-236, 2010.
- 16) Fu, B, Huo, Y. and H. Zhao, "Exponential Inapproximability and FPTAS for Scheduling with Availability Constraints", *Theoretical Computer Science*, 410:2663-2674, 2009.
- 17) Huo, Y., J. Y-T. Leung and X. Wang, "Preemptive Scheduling Algorithms with Nested Processing Set Restriction," *International Journal of Foundations of Computer Science*, 20(6): 1147-1160, 2009.
- 18) Fu, B, Y. Huo and H. Zhao, "Makespan Minimization with Machine Availability Constraints," *Discrete Mathematics, Algorithms and Applications*, 1(2): 141-151, 2009.
- 19) Huo, Y., J. Y-T. Leung and X. Wang, "A Fast Preemptive Scheduling Algorithm with Release Times and Inclusive Processing Set Restrictions," *Discrete Optimization*, 6(3): 292-298, 2009.
- 20) Huo, Y., H. Li, and H. Zhao, "Minimizing Total Completion Time in Two-Machine Flow Shops with Exact Delays," *Computers & Operations Research*, 36(6): 2018-2030, 2009.
- 21) Huo, Y., J. Y-T. Leung and X. Wang, "Online Scheduling of Equal-Processing-Time Task Systems," *Theoretical Computer Science*, 401: 85-95, 2008.

- 22) Huo, Y., J. Y-T. Leung and H. Zhao, "Complexity of Two Dual Criteria Scheduling Problems," *Operations Research Letters*, 35:211-220, 2007.
- 23) Huo, Y., J. Y-T. Leung and H. Zhao, "Bi-criteria Scheduling Problems: Number of Tardy Jobs and Maximum Weighted Tardiness," *European Journal of Operational Research*, 177:116-134, 2007.
- 24) Huo, Y. and J. Y-T. Leung, "Minimizing Mean Flow Time for UET Tasks," *ACM Transactions on Algorithms*, Vol. 2, No. 2, pp. 244-262. April 2006.
- 25) Huo, Y. and J. Y-T. Leung, "Online Scheduling of Precedence Constrained Tasks," *SIAM J. on Computing*, Volume 34, Number 3, pp. 743-762. 2005.
- 26) Huo, Y. and J. Y-T. Leung, "Minimizing Total Completion Time for UET Tasks with Release Time and Outtree Precedence Constraints," *Mathematical Methods of Operations Research*, Vol. 62, No. 2, pp. 275-278, 2005.
- 27) Huo Y. and Q. Wang, "Control Flow Analysis and Simulator Design for VLIW Architecture Microprocessor", *MINI-MICRO SYSTEMS*, Vol. 22, No. 5, 2001.
- 28) Tu, X. and Y. Huo, "Knowledge Economics-oriented Intelligence Simulation Technology", *Computer Simulation*, 1999(7).

#### REFEREED PROCEEDINGS

- 1) Tan J., S. Zhang, W. Cao, Y. Gao, L.C. Li, Y. Huo, Z. Liang, "A multi-stage fusion strategy for multi-scale GLCM-CNN model in differentiating malignant from benign polyps," *Medical Imaging 2020: Computer-Aided Diagnosis*, 11314, 113141S, 2020.
- 2) Huo Y. and H. Zhao, "Revisit Heuristics for Flowshop Scheduling with Availability Constraint," *The 9th Multidisciplinary International Conference on Scheduling: Theory and Applications (MISTA 2019)*, 609-611, 2019.
- 3) Tan J., Y. Gao, W. Cao, M.J. Pomeroy, S. Zhang, Y. Huo, L. Li, Z. Liang, "GLCM-CNN: Gray Level Co-occurrence Matrix based CNN Model for Polyp Diagnosis," *IEEE EMBS International Conference on Biomedical & Health Informatics (BHI)*, 1-4, 2019.
- 4) Tan J., Y. Gao, Y. Huo, L. Li, Z. Liang, "Sharpness preserved sonogram synthesis using convolutional neural network for sparse-view CT imaging," *SPIE Medical Imaging: Image Processing*, 109490E, 2019.
- 5) Tan J., Y. Huo, Z. Liang, L. Li, "A Fast Automatic Juxta-pleural Lung Nodule Detection Framework Using Convolutional Neural Networks and Vote Algorithm," *The International Workshop on Patch-Based Techniques in Medical Imaging, (Patch-MI@MICCAI 2018), Lecture Notes in Computer Science Vol. 11075*, page 85-92, 2018.
- 6) Tan J., Y. Huo, Z. Liang, L. Li, "Apply Convolutional Neural Network to Lung Nodule Detection: Recent Progress and Challenges," *The International Conference for Smart Health 2017 (ICSH 2017)*.
- 7) Tan J., A. Kotov, R.P. Mohammadiani, Y. Huo, "Sentence Retrieval with Sentiment-specific Topical Anchoring for Review Summarization", *The 26th 2017 ACM Conference on Information and Knowledge Management (CIKM'17)*. ).
- 8) Tan J., Huo Y., Z. Liang and L. Li, "A Comparison Study On The Effect Of False Positive Reduction In Deep Learning Based Detection For Juxtapleural Lung Nodules: CNN VS DNN," *Modeling and Simulation in Medicine Symposium 2017 (MSM 2017)*.
- 9) Tan J., Huo Y., and L. Li, "Using ConvNet to recognize lung nodule from CT user data: A feasibility study," *Computational Approaches for Cancer Workshop 2016 (CAFCW-2016)*.

- 10) Huo, Y. and H. Zhao, "Minimizing Total Completion Time in Flow shop with Availability Constraints," *9th International Workshop on Computational Optimization (WCO'16), Proceedings of the Federated Conference on Computer Science and Information Systems*, 637-645, 2016.
- 11) Huo, Y. and Huang J.X., "Parallel ant colony optimization for flow shop scheduling subject to limited machine availability," *The sixth IEEE Workshop on Parallel Computing and Optimization, IEEE International Parallel and Distributed Processing Symposium Workshops*, 756-765, 2016.
- 12) Huo, Y., "Makespan Minimization on Multiple Machines Subject to Machine Unavailability and Total Completion Time Constraints," *The tenth International Conference on Algorithmic Aspects of Information and Management (AAIM 2014), Lecture Notes In Computer Science*, Vol. 8546: 56-65, 2014.
- 13) Huo, Y. and H. Zhao, "Bi-criteria Scheduling on Multiple Machines Subject to Machine Availability Constraints," *The Seventh International Frontiers of Algorithmics Workshop and The Ninth International Conference on Algorithmic Aspects of Information and Management (FAW-AAIM 2013), Lecture Notes In Computer Science*, Vol. 7924: 325-338, 2013.
- 14) Huo, Y., B. Reznichenko and H. Zhao, "Minimizing Total Weighted Completion Time with Unexpected Machine Unavailability," *The 6rd Annual International Conference on Combinatorial Optimization and Applications (COCOA'12), Lecture Notes In Computer Science*, Vol. 7402: 291-300, 2012.
- 15) Fu, B., Y. Huo and H. Zhao, "Approximation Schemes for Scheduling with Availability Constraints," *In the Proceedings of the Fourth International Frontiers of Algorithmics Workshop (FAW 2010), Lecture Notes in Computer Science, Lecture Notes In Computer Science*, Vol. 6213: 77-88, 2010.
- 16) Fu, B, Huo, Y. and H. Zhao, "Coordinated Scheduling of Production and Delivery with Production Window and Delivery Capacity Constraints", *The Sixth International Conference on Algorithmic Aspects in Information and Management (AAIM'10), Lecture Notes In Computer Science*, Vol. 6124: 141-149, 2010.
- 17) Huo, Y., J. Y-T. Leung and X. Wang, "Integrated production and delivery scheduling with disjoint windows," *The 3rd Annual International Conference on Combinatorial Optimization and Applications (COCOA'09), Lecture Notes In Computer Science*, Vol. 5573: 471-482, 2009.
- 18) Fu, B., Y. Huo and H. Zhao, "Makespan minimization with machine availability constraints", *The 3rd Annual International Conference on Combinatorial Optimization and Applications (COCOA'09), Lecture Notes In Computer Science*, Vol. 5573: 430-437, 2009.
- 19) Huo, Y., H. Li, and H. Zhao, "Minimizing Total Completion Time in Two-Machine Flow Shops With Exact Delays," *The 2nd Annual International Conference on Combinatorial Optimization and Applications (COCOA'08), Lecture Notes In Computer Science*: Vol. 5165: 427-437, 2008.
- 20) Huo, Y. and J. Y-T. Leung, "Online Scheduling of Precedence Constrained Tasks," *Proceedings of the 2nd Multidisciplinary International Conference on Scheduling: Theory & Applications (MISTA 2005)*, pages 573-584, 2005.

## REFEREED POSTERS

- 1) Huo, Y. and Gu, F. Adoptions and Outcomes of NSF/IEEE TCPP PDC Curriculum at College of Staten Island, *NSF/TCPP Workshop on Parallel and Distributed Computing Education (EduPar-16)*, Chicago, IL, May 23, 2016.
- 2) Huo, Y. and Gu, F. EA Poster: Experience of Applying NSF/IEEE TCPP Curriculum Initiative on Parallel and Distributed Computing at College of Staten Island, *EduHPC-15: Workshop on Education for High-Performance Computing*, Austin, TX, November 16, 2015.

- 3) Huo, Y. and Gu, F. EA Poster - Parallel and Distributed Computing Curriculum at College of Staten Island, *29th IEEE International Parallel & Distributed Processing Symposium*, May 23-27, 2015, Hyderabad, India.

#### NON-REFEREED BOOKS, ARTICLES, AND PROCEEDINGS

- 1) Cardozo, A. and Y. Huo (2017), "Parallel Ant Colony Optimization for Flow Shop Scheduling under Shared Memory Platform," *Undergraduate Research conference 2017*, College of Staten Island, CUNY.
- 2) Park, S. and Y. Huo (2017), "Parallel Tabu Search Algorithms for Two Machine Flow Shop with Limited Machine Availability," *Undergraduate Research conference 2017*, College of Staten Island, CUNY.
- 3) Ariaudo, D. and Y. Huo (2015), "Minimizing Total Completion Time in Flow Shop with Unavailable Interval on the First Machine," *Undergraduate Research conference 2015*, College of Staten Island, CUNY.

#### PROFESSIONAL ACTIVITIES

##### ACTIVITIES AS REVIEWER/PANELIST

- 1) Review proposals for *Chancellor's Research Fellowship Program*
- 2) Review proposals for *PSC-CUNY GRANT*
- 3) Reviewer, *Operations Research*
- 4) Reviewer, *European Journal of Operational Research*
- 5) Reviewer, *Optimization Letters*
- 6) Reviewer, *SpringerPlus*
- 7) Reviewer, *Journal of Scheduling*
- 8) Reviewer, *Journal of Industrial and Management Optimization*
- 9) Reviewer, *International Journal of Industrial and Systems Engineering (IJISE)*
- 10) Reviewer, *Computers and Operations Research*
- 11) Reviewer, *Journal of Discrete Algorithms (JDA)*
- 12) Reviewer, *Journal of Systems Science and Systems Engineering (JSSSE)*
- 13) Reviewer, *Naval Research Logistics*
- 14) Reviewer, *International Journal of Production Economics (IJPE)*
- 15) Reviewer, *ETRI (Electronics and Telecommunications Research Institute) Journal*
- 16) Reviewer, *Journal of Industrial and Management Optimization (JIMO)*
- 17) Reviewer, *Journal of Combinatorial Optimization*
- 18) Reviewer, *Omega, The International Journal of Management Science*
- 19) Reviewer, *Journal of Intelligent Manufacturing*
- 20) Reviewer, *IIE Transactions*
- 21) Reviewer, *Transportation Research Part E: Logistics and Transportation Review*

- 22) Reviewer, *Engineering Optimization*
- 23) Reviewer, *IEEE Transactions on Automation Science and Engineering*
- 24) Reviewer, *STACS 2013*
- 25) Reviewer, *Discrete Applied Mathematics*
- 26) Reviewer, *Mathematical Reviews*
- 27) Reviewer, *Mathematical and Computer Modelling*
- 28) Reviewer, *IEEE/Systems, Man and Cybernetics, Part A*
- 29) Reviewer, *SODA2011*
- 30) Reviewer, *Computers and Mathematics with Applications (CAMWA)*
- 31) Reviewer, *Computers & Industrial Engineering*
- 32) Reviewer, *The Second International Conference on Networked Digital Technologies (NDT2010)*
- 33) Reviewer, *International Journal of Management Science and Engineering Management (IJMSEM)*
- 34) Reviewer, *SODA2010*
- 35) Reviewer, *Production and Operations Management*
- 36) Reviewer, *WINE'09*
- 37) Reviewer, *Int. J. of Operational Research and Information Systems*
- 38) Reviewer, *Approx'09s*
- 39) Reviewer, *Asia-Pacific Journal of Operational Research*
- 40) Reviewer, *FOCS2008*
- 41) Reviewer, *ICALP2008*
- 42) Reviewer, *Discrete Math and Theoretical Computer Science*

#### PROFESSIONAL ORGANIZATION OF CONFERENCES AND SYMPOSIA, CURATORIAL ACTIVITIES

- 1) Conference Program Committee, MISTA 2019
- 2) Session chair, INFORMS 2019
- 3) Session chair, INFORMS 2018
- 4) Session chair, INFORMS 2016
- 5) Session chair, INFORMS International 2016 (proposed a new session, invite speakers, evaluate the presentation)
- 6) Session chair, INFORMS 2015
- 7) Session chair, AAIM 2014
- 8) Session chair, POMS 2014

#### INVITED TALKS FOR CONFERENCE AND SEMINARS

- 1) "Revisit Heuristics for Flowshop Scheduling with Availability Constraint", in INFORMS 2019.

- 2) "Bi-criteria Scheduling Subject to Machine Availability Constraints", *INFORMS2018*.
- 3) "Parallel Algorithms for Flow Shop Scheduling Subject to Limited Machine Availability", *INFORMS 2017*.
- 4) "Multi-criteria Scheduling with Limited Machine Availability", Northwestern Polytechnical University, China, Dec 2016.
- 5) "Two Machine Scheduling Subject to Arbitrary Machine Availability Constraints," *INFORMS2016*.
- 6) "Parallel ant colony optimization for flow shop scheduling subject to limited machine availability," *INFORMS INTERNATIONAL 2016*.
- 7) "Makespan Minimization on Parallel Machines Subject to Machine Release Times and Minimum Total Completion Time," *INFORMS2015*.
- 8) "Makespan Minimization on Multiple Machines Subject to Machine Unavailability and Total Completion Time Constraints," *INFORMS2014*.
- 9) "Makespan Minimization on Multiple Machines Subject to Machine Unavailability and Total Completion Time Constraints," *POMS2014*.
- 10) "Minimizing Total Weighted Completion Time with Unexpected Machine Unavailability," *INFORMS2012*.
- 11) "Approximation Schemes for Parallel Machine Scheduling with Availability Constraints," *POMS2012*.
- 12) "Coordinated Scheduling of Production and Delivery with Production Window and Delivery Capacity Constraints," The Computer Science Colloquium, CUNY Graduate Center, Feb 2012.
- 13) "Coordinated Scheduling of Production and Delivery with Production Window and Delivery Capacity Constraints", *INFORMS2011*.
- 14) "Bicriteria Scheduling Concerned with Makespan and Total Completion Time Subject to Machine Availability Constraints", *INFORMS2011*.
- 15) "Minimizing Total Completion Time in Two-machine Flow Shops with Exact Delays", Colloquium on Computer Science research, College of Staten Island, CUNY, Oct. 2011.
- 16) "Integrated Production and Delivery Scheduling with Disjoint Windows", CUNY Graduate Center, April 2010.
- 17) "Exponential Inapproximability and FPTAS for Scheduling with Availability Constraints", CUNY Graduate Center, Discrete Algorithms Seminar, March 2010.
- 18) "Parallel Machine Scheduling with Nested Processing Set Restrictions", *INFORMS2009*.
- 19) "Solving Combinatorial Optimization Problems." *STEAM, College of Staten Island, CUNY, 2009*.
- 20) "Integrated production and delivery scheduling with disjoint windows," *INFORMS2008*.
- 21) "Online Scheduling of Precedence Constrained Tasks," CUNY Graduate Center, Feb 2008.
- 22) "Estimating Mean Flow Time in Scheduling Applications," Graduate Student Seminar, New Jersey Institute of Technology, November 2004.
- 23) "Some Results on Several Online Problems," Graduate Student Seminar, New Jersey Institute of Technology, December 2003.

## GRANTS

## EXTERNAL PEER-REVIEWED GRANTS

- Exploring Introduction of High Performance Computing and Big Data in High School, NSF CFDA OAC, \$50,000, PI, 2018-2019.
- GPU-based algorithms for computer-aided diagnosis of pulmonary nodules in CT images, NVIDIA Small Scale GPU grants, PI, 2017.
- Enhance Parallel and Distributed Computing Teaching by Infusing NSF/IEEE-TCPP Curriculum Initiative into the Existing Courses and Developing a New Course, NSF/IEEE, PI, \$2,500, 2014-2015.

## INTERNAL PEER-REVIEWED GRANTS

- Makespan Minimization Subject to Machine Availability and Total Completion Time Constraints, The Professional Staff Congress-City University of New York (PSC-CUNY) Grant, PI, \$5995.08, 2019-2020.
- Bi-criteria Scheduling concerned with makespan and total completion time with processing set restrictions, The Professional Staff Congress-City University of New York (PSC-CUNY) Grant, PI, \$5983.17, 2017-2018.
- Ensembled Framework for Two Machine Flow Shop Scheduling, Student-Faculty Research Mini-Grant, PI, \$2,832.00, 2017-2018.
- Batch Processing Machine with Nonidentical Job Sizes, The Professional Staff Congress-City University of New York (PSC-CUNY) Grant, PI, \$5995.46, 2016-2017.
- Parallel Metaheuristics Design on Two Machine Flow Shop Scheduling Problems, Student-Faculty Research Mini-Grant, PI, \$1,949.83, 2016-2017.
- Minimizing Total Completion Time in two-stage Flowshop with Unavailable Interval, The Professional Staff Congress-City University of New York (PSC-CUNY) Grant, PI, \$5992.57, 2014-2015.
- Hierarchical Approximation: A new approach for hierarchical multicriteria scheduling problems, The Professional Staff Congress-City University of New York (PSC-CUNY) Grant, PI, \$5998.76, 2013-2014.
- Integrated Production-Delivery Scheduling with Fixed Delivery Time and Production Windows, The Professional Staff Congress-City University of New York (PSC-CUNY) Grant, PI, \$5997.83, 2011-2012.
- Parallel Machine Bicriteria Scheduling Concerned with Makespan and Total Completion Time Subject to Machine Availability Constraints, The Professional Staff Congress-City University of New York (PSC-CUNY) Grant, PI, \$2861.58, 2010-2011.
- Hierarchical Approximation: A New Approach for Hierarchical Multicriteria Scheduling Problems, Provost Scholarship, PI, \$12,000, 2009-2011.
- Minimizing the Total Weighted Flow Time with Limited Machine Availability, The Professional Staff Congress-City University of New York (PSC-CUNY) Grant, PI, \$4,375.00, 2009-2010.
- Parallel Metaheuristics Design on Minimizing Total Weighted Completion Time, Student-Faculty Research Mini-Grant, PI, \$2,560, 2009-2010.
- Parallel Machine Scheduling with Job Assignment Restrictions, The Professional Staff Congress-City University of New York (PSC-CUNY) Grant, PI, \$4,000, 2008-2009.



- Metaheuristics on Bicriteria Scheduling Problems Concerned with the Total Number of Tardy Jobs and the Maximum Tardiness, Student-Faculty Research Mini-Grant, PI, \$2,000, 2008-2009.
- Dual Criteria Scheduling Problems, The Professional Staff Congress-City University of New York (PSC-CUNY) Grant, PI, \$4,095, 2007-2008.
- Online Scheduling of Precedence Constrained Tasks, The Professional Staff Congress-City University of New York (PSC-CUNY) Grant, PI, \$3,176, 2006-2007.

## **ACADEMIC AND PROFESSIONAL HONORS**

- CUNY Academy's Associate Professor Travel Awards for INFORMS 2016, \$200.00, 04/14/2017.
- Provost Travel Award for INFORMS 2016, Two Machine Scheduling Subject to Arbitrary Machine Availability Constraints, \$350.00, 03/30/2017.
- Faculty Center Travel Award for INFORMS International 2016, Parallel ant colony optimization for flow shop scheduling subject to limited machine availability, \$1,000.00, 05/12/2016.
- NSF/Intel Travel Awards for EduPar-16 at IPDPS -16, Adoptions and Outcomes of NSF/IEEE TCPP PDC Curriculum at College of Staten Island, \$1,500.00, 03/26/2016.
- NSF/Intel Travel Awards for EduPar-15 at SC-15, Experience of Applying NSF/IEEE TCPP Curriculum Initiative on Parallel and Distributed Computing at College of Staten Island, \$1,500.00, 10/15/2015.
- Provost Travel Award for INFORMS 2015, Makespan Minimization on Parallel Machines Subject to Machine Release Times and Minimum Total Completion Time, \$900.00, 10/02/2015.
- NSF/Intel Travel Awards for EduPar-15 at IPDPS-15, Parallel and Distributed Computing Curriculum at College of Staten Island, \$2,500.00, 03/20/2015.
- Supervision of undergraduate research: CUE (CUNY Coordinate Undergraduate Education Program) undergraduate student stipend for S. Park, 2018; A. Cardozo, 2017.
- Supervision of undergraduate research: Student-Faculty Research Mini-Grant for R. Lavrov, A. Maya, M. Singh, S. Park 2008, 2009, 2017
- Supervision of undergraduate research: Dean's Stipend Award (CSI/CUNY) for D. Ariaudo, 2014.
- Supervision of undergraduate research: STEAM Summer Research Stipend for J. Yeum, 2011.

## **TEACHING PORTFOLIO**

### **COURSES TAUGHT**

- CSC102 Computing for Today (Spring 2006, Fall 2006)
- CSC126 Introduction to Computer Science (Spring 2006, Spring 2007, Spring 2008, Spring 2009, Fall 2009)
- CSC211 Intermediate Programming (Spring 2010)
- CSC229 High Performance Computing (Fall 2011)
- CSC305 Operating Systems Programming Laboratory (Fall 2017)

- CSC326 Information Structures (Spring 2009, Fall 2013, Spring 2014, Spring 2015, Spring 2016, Fall 2016)
- CSC332 Operating System I (Spring 2007, Spring 2008, Fall 2017)
- CSC382 Analysis of Algorithms (Fall 2010, Fall 2018)
- CSC429 Advanced High Performance Computing (Fall 2012, Fall 2014)
- CSC450 Honors Workshop (Fall 2011, Fall 2017, Fall 2018, Spring 2019)
- CSC704 Technology Infused Curriculum (Fall 2015 (2 sections), Spring 2016, Fall 2017, Spring 2018)
- CSC718 Operating System Design (Fall 2005, Fall 2006)
- CSC716 Advanced Operating System (Fall 2007, Fall 2008, Fall 2009, Fall 2010, Fall 2011, Fall 2012, Fall 2013, Fall 2014, Fall 2015, Spring 2017, Fall 2017, Spring 2018, Spring 2019)
- CSC744 Parallel Computing (Fall 2007, Fall 2008)
- CSC770 Parallel Computing (Spring 2010, Fall 2012, Spring 2015, Fall 2016, Spring 2018)
- CSC799 Supervising graduate student projects for master thesis and/or funded by PSC-CUNY (Summer 2007 (2 students), Fall 2007 (2 students), Summer 2012, Fall 2013)
- CSC893 Computer Science Independent Research (Fall 2011 (2 students), Summer 2013)
- CSC80030 Sequencing and Scheduling (at CUNY, the Graduate Center) (Spring 2014, Spring 2017)
- CSC 79000 Independent Study (at CUNY, Graduate Center) (Spring 2018)

#### NEW COURSE(S) OR CURRICULA DEVELOPED

- 1) New undergraduate course developed, “CSC4xx Shared Memory Parallel Computing”, passed by department, to be submitted to college curriculum committee, 2015-2016
- 2) New undergraduate course developed, “CSC229 Introduction to High Performance Computing”, 2009
- 3) New undergraduate course developed, “CSC429 Advanced High Performance Computing”, 2009
- 4) New graduate course developed, “CSC770 Parallel Computing”, 2007.

#### RECORD OF SERVICE

##### CUNY

- 1) Search committee member for the Director of the CUNY HPC (High Performance Computation Center), 2017
- 2) Review panel, Chancellor’s Research Fellowship Program, 2016, 2017
- 3) Member, Admissions and Awards Committee, CUNY Graduate Center, Computer Science Department, 12/2015 - present
- 4) Member, Election Committee, CUNY Graduate Center, Computer Science Department, 9/2015 – present
- 5) Doctoral Faculty in Computer science of the Graduate School and University Center, CUNY, 2006-present.

- 6) Member, Election Committee, CUNY Graduate Center, Computer Science Department, 9/2013 - 2015
- 7) Member, Panel on Computer Science and Library of the PSC CUNY Research Award System (Jan-Apr, 2020, Jan-Apr, 2019, Jan-Apr, 2018, Jan-Apr, 2017, Jan-Apr, 2016, Jan-Apr, 2015, Jan-Apr, 2014, Jan-Apr, 2013, Jan-Apr, 2012)
- 8) Served as the CPE Liaison of College of Staten Island, 1/2008-12/2010
- 9) Search committee member for the Director of the CUNY HPCC (High Performance Computation Center), 9/2009-2/2010

#### CSI

- 1) Member, HPCC Director Search Committee
- 2) CSI Science Day, 3/2018
- 3) Member, Provost Travel Grant Review Panel, 3/2017, 2/2018
- 4) Member, CSI Research Committee, 6/2015-present
- 5) Member, Faculty Senate and College Council, 9/2014-present
- 6) Alternate member, Course & Standing Committee, 11/2014-present
- 7) Member, Teaching & Learning Committee, 2007-present
- 8) Member, Course & Standing Committee, 9/2005-8/2014
- 9) Member, the Middle States Working Group 5, 2/2010-2013
- 10) Search committee member for the faculty of Mathematics, 2008, 2009
- 11) Alternate member, College Curriculum Committee, 2007
- 12) Alternate member, Honors College Committee, 2007

#### DEPARTMENT/PROGRAM

- 1) Member, Sub math Committee, 1/2008-present
- 2) Served as chair of the search committee for STEM Academic Advising Manager, 9/2014-8/2015
- 3) Search committee Member for Assistant Professor, 9/2012-5/2013
- 4) Search committee Member for Distinguished/Full Professor Search committee, 9/2011-5/2012

#### ADDITIONAL SERVICE

- 1) Staten Island Tech Day, Jan. 2018
- 2) Department Representative, Faculty-led Academic Workshops in New Student Orientation Program or Open House, 5/2007, 11/2007, 3/2008, 5/2008, 8/2008, 3/2009, 5/2009, 11/2009, 3/2010, Summer 2012, Summer 2013, 2/2018
- 3) Student Advisement, winter & summer 2005-2018