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Computers and Education

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TITLE	CITED BY	YEAR
Authoring Interactive Online Lessons Using learnscs. online G Challen Proceedings of the 56th ACM Technical Symposium on Computer Science ...		2025
Investigating the Presence and Development of Student Instructor Preferences in a Large-Scale CS1 Course Y Zhou, L Paquette, G Challen Proceedings of the 56th ACM Technical Symposium on Computer Science ...		2025
Accelerating Accurate Assignment Authoring Using Solution-Generated Autograders G Challen, B Nordick Proceedings of the 56th ACM Technical Symposium on Computer Science ...		2025
Interviewing the Teaching Faculty Hiring Process G Challen, V Dean, N Derbinsky, MX Wang, J Smith Proceedings of the 55th ACM Technical Symposium on Computer Science ...	1	2024
Implementation of split deadlines in a large cs1 course H Chen, A Li, G Challen, K Cunningham Proceedings of the 55th ACM Technical Symposium on Computer Science ...	3	2024
Thermal-aware overclocking for smartphones GP Srinivasa, D Werner, M Hempstead, G Challen 2021 IEEE International Symposium on Performance Analysis of Systems and ...	3	2021
Data-Driven Investigation into Variants of Code Writing Questions L Butler, G Challen, T Xie 2020 IEEE 32nd Conference on Software Engineering Education and Training ...	10	2020
Grading-based test suite augmentation J Osei-Owusu, A Astorga, L Butler, T Xie, G Challen 2019 34th IEEE/ACM International Conference on Automated Software ...	7	2019
Quantifying process variations and its impacts on smartphones GP Srinivasa, S Haseley, G Challen, M Hempstead 2019 IEEE International Symposium on Performance Analysis of Systems and ...	6	2019
Lessons from four years of phonelab experimentation J Shi, E Santos, G Challen arXiv preprint arXiv:1902.01929	3	2019

TITLE	CITED BY	YEAR
Qoe inference and improvement without end-host control A Nikraves, QA Chen, S Haseley, X Zhu, G Challen, ZM Mao 2018 IEEE/ACM Symposium on Edge Computing (SEC), 43-57	20	2018
Session details: Arm's Length G Challen GetMobile: Mobile Computing and Communications 22 (2)		2018
Verifi: Model-driven runtime verification framework for wireless protocol implementations J Shi, S Lahiri, R Chandra, G Challen arXiv preprint arXiv:1808.03406	4	2018
Wireless protocol validation under uncertainty J Shi, SK Lahiri, R Chandra, G Challen Formal methods in system design 53 (1), 33-53	11	2018
CAREER: Harnessing Implementation Flexibility to Enable Runtime Adaptation GW Challen NSF Award Number 1824228. Directorate for Computer and Information Science ...		2018
Session details: past→ Future G Challen GetMobile: Mobile Computing and Communications 21 (3)		2017
CAREER: Harnessing Implementation Flexibility to Enable Runtime Adaptation GW Challen NSF Award Number 1652397. Directorate for Computer and Information Science ...		2017
Robust, cost-effective and scalable localization in large indoor areas T Guan, L Fang, W Dong, D Koutsonikolas, G Challen, C Qiao Computer Networks 120, 43-55	23	2017
Separated by birth: Hidden differences between seemingly-identical smartphone cpus GP Srinivasa, R Begum, S Haseley, M Hempstead, G Challen Proceedings of the 18th International Workshop on Mobile Computing Systems ...	16	2017
Algorithms for CPU and DRAM DVFS under inefficiency constraints R Begum, M Hempstead, GP Srinivasa, G Challen 2016 IEEE 34th International Conference on Computer Design (ICCD), 161-168	10	2016
CI-SUSTAIN: Collaborative Research: Sustaining Successful Smartphone Testbeds to Enable Diverse Mobile Experiments GW Challen NSF Award Number 1629894. Directorate for Computer and Information Science ...		2016
Poster: QoE-centric mobile operating system design S Haseley, G Challen Proceedings of the 14th Annual International Conference on Mobile Systems ...		2016
A walk on the client side: Monitoring enterprise wifi networks using smartphone channel scans	56	2016

TITLE	CITED BY	YEAR
J Shi, L Meng, A Striegel, C Qiao, D Koutsonikolas, G Challen IEEE INFOCOM 2016-the 35th annual IEEE international conference on computer ...		
Why and how to use phonelab J Shi, E Santos, G Challen GetMobile: Mobile Computing and Communications 19 (4), 32-38	3	2016
CRAWDAD dataset buffalo/phonelab-wifi (v. 2016-03-09) J Shi, C Qiao, D Koutsonikolas, G Challen CRAWDAD wireless network data archive 3	13	2016
Jouler: A policy framework enabling effective and flexible smartphone energy management A Maiti, Y Chen, G Challen International Conference on Mobile Computing, Applications, and Services ...	6	2015
Energy-performance trade-offs on energy-constrained devices with multi-component DVFS R Begum, D Werner, M Hempstead, G Prasad, G Challen 2015 IEEE international symposium on workload characterization, 34-43	37	2015
A little sharing goes a long way: The case for reciprocal wifi sharing J Shi, L Gui, D Koutsonikolas, C Qiao, G Challen Proceedings of the 2nd International Workshop on Hot Topics in Wireless, 6-10	10	2015
Pocket data: The need for TPC-MOBILE O Kennedy, J Ajay, G Challen, L Ziarek Technology Conference on Performance Evaluation and Benchmarking, 8-25	33	2015
The missing numerator: Toward a value measure for smartphone apps A Maiti, G Challen Proceedings of the 16th International Workshop on Mobile Computing Systems ...	3	2015
Maybe we should enable more uncertain mobile app programming G Challen, JA Ajay, N DiRienzo, O Kennedy, A Maiti, A Nandugudi, ... Proceedings of the 16th International Workshop on Mobile Computing Systems ...	1	2015
Controlling smartphone user privacy via objective-driven context mocking N DiRienzo, G Challen 6th International Conference on Mobile Computing, Applications and Services ...		2014
The PocketLocker personal cloud storage system A Nandugudi, C Nuessle, G Challen, E Miluzzo, YF Chen 6th International Conference on Mobile Computing, Applications and Services ...	1	2014
Should smartphone users mock apps? N DiRienzo, G Challen 2014 IEEE 11th International Conference on Mobile Ad Hoc and Sensor Systems ...	2	2014
Crowdsourcing access network spectrum allocation using smartphones J Shi, Z Guan, C Qiao, T Melodia, D Koutsonikolas, G Challen Proceedings of the 13th ACM workshop on hot topics in networks, 1-7	32	2014

TITLE	CITED BY	YEAR
CSR: Small: Jouler: A Cross-Device Energy Management Framework for Smartphones GW Challen NSF Award Number 1423215. Directorate for Computer and Information Science ...		2014
Pocketparker: Pocketsourcing parking lot availability A Nandugudi, T Ki, C Nuessle, G Challen Proceedings of the 2014 ACM International Joint Conference on Pervasive and ...	89	2014
CSR: Medium: Collaborative Research: Architecture and System Support for Power-Agile Computing GW Challen NSF Award Number 1409367. Directorate for Computer and Information Science ...		2014
The mote is dead: long live the discarded smartphone! G Challen, S Haseley, A Maiti, A Nandugudi, G Prasad, M Puri, J Wang Proceedings of the 15th Workshop on Mobile Computing Systems and ...	7	2014
Enabling MOOC collaborations through modularity G Challen, M Seltzer Proceedings of the 2014 Learning with MOOCs Practitioner's Workshop	5	2014
Phonelab: A large programmable smartphone testbed A Nandugudi, A Maiti, T Ki, F Bulut, M Demirbas, T Kosar, C Qiao, SY Ko, ... Proceedings of First International Workshop on Sensing and Big Data Mining, 1-6	109	2013
Model-free HVAC control using occupant feedback S Purdon, B Kusy, R Jurdak, G Challen 38th Annual IEEE Conference on Local Computer Networks-Workshops, 84-92	119	2013
Participant behavior in phonelab A Nandugudi, A Maiti, F Bulut, S Batra, Y Ki, G Challen, M Demirbas, S Ko, ... Third International Conference on the Analysis of Mobile Phone Datasets (NetMob)	4	2013
CI-ADDO-NEW: PhoneLab: A Programmable Participatory Smartphone Testbed GW Challen NSF Award Number 1205656. Directorate for Computer and Information Science ...		2012
PhoneLab: A large-scale participatory smartphone testbed R Baldawa, M Benedict, MF Bulut, G Challen, M Demirbas, J Inamdar, ... USENIX NSDI poster session	7	2012
Phonelab: A large-scale participatory smartphone testbed G Challen, M Demirbas, S Ko, T Kosar Proc. NSF Workshop on Pervasive Computing at Scale (PeCS)	1	2011
The Case for {Power-Agile} Computing G Challen, M Hempstead 13th Workshop on Hot Topics in Operating Systems (HotOS XIII)	19	2011
Travel Support for SenSys 2010 GW Challen		2010

TITLE	CITED BY	YEAR
NSF Award Number 1059586. Directorate for Computer and Information Science ...		
Wireless sensor networks: Deployments and design frameworks E Gaura, L Girod, J Brusey, M Allen, G Challen Springer Science & Business Media	82	2010
Learning from deployment experience E Gaura, M Allen, L Girod, G Challen, J Brusey Wireless sensor networks: Deployments and design frameworks, 15-50	5	2010
Designing for deployment M Allen, G Challen, J Brusey, L Girod, E Gaura Wireless Sensor Networks: Deployments and Design Frameworks, 51-67	4	2010
Volcano monitoring: Addressing data quality through iterative deployment G Challen, M Welsh Wireless Sensor Networks: Deployments and Design Frameworks, 71-113	7	2010
IDEA: Integrated distributed energy awareness for wireless sensor networks GW Challen, J Waterman, M Welsh Proceedings of the 8th international conference on Mobile systems ...	84	2010
Data fidelity and resource management for data-rich sensor networks GW Challen Harvard University	4	2010
Integrated distributed energy awareness for wireless sensor networks GW Challen, J Waterman, M Welsh Proceedings of the 7th ACM Conference on Embedded Networked Sensor Systems ...	6	2009
Mercury: a wearable sensor network platform for high-fidelity motion analysis. K Lorincz, B Chen, GW Challen, AR Chowdhury, S Patel, P Bonato, ... SenSys 9, 183-196	428	2009
Peloton: Coordinated Resource Management for Sensor Networks. J Waterman, GW Challen, M Welsh HotOS 9, 9-9	24	2009
Peloton: A Distributed {OS} for Sensor Network Resource Coordination J Waterman, GW Challen		2009
Lance: optimizing high-resolution signal collection in wireless sensor networks G Werner-Allen, S Dawson-Haggerty, M Welsh Proceedings of the 6th ACM conference on embedded network sensor systems ...	97	2008
Resource aware programming in the pixie os K Lorincz, B Chen, J Waterman, G Werner-Allen, M Welsh Proceedings of the 6th ACM conference on Embedded network sensor systems ...	146	2008
Proceedings of the 1st Workshop on Social Network Systems, SocialNets' 08-Affiliated with EuroSys 2008: Preface L Stein, A Mislove, A Anagnostopoulos, B Bhattacharjee, Y Chen, Y Dai, ... Proceedings of the 1st Workshop on Social Network Systems, SocialNets' 08 ...		2008

TITLE	CITED BY	YEAR
Digital seismo-acoustic signal processing aboard a wireless sensor platform O Marcillo, JB Johnson, K Lorincz, G Werner-Allen, M Welsh AGU Fall Meeting Abstracts 2006, S13B-0235		2006
Fidelity and yield in a volcano monitoring sensor network G Werner-Allen, K Lorincz, J Johnson, J Lees, M Welsh Proceedings of the 7th symposium on Operating systems design and ...	937	2006
Real-time volcanic earthquake localization G Werner-Allen, P Swieskowski, M Welsh Proceedings of the 4th international conference on Embedded networked sensor ...	26	2006
Deploying a wireless sensor network on an active volcano G Werner-Allen, K Lorincz, M Ruiz, O Marcillo, J Johnson, J Lees, ... IEEE internet computing 10 (2), 18-25	1840	2006
Eruptive Activity of Reventador Volcano, Ecuador, Recorded by a Seismic-Infrasonic Deployment JB Johnson, JM Lees, MC Ruiz, M Welsh, G Werner-Allen, Y Kuntukova AGU Fall Meeting Abstracts 2005, V21C-0611		2005
A wireless seismoacoustic sensor network for monitoring activity at Volcano Reventador, Ecuador M Welsh, G Werner-Allen, K Lorincz, O Marcillo, M Ruiz, J Johnson, ... AGU Fall Meeting Abstracts 2005, V21C-0612	4	2005
Firefly-inspired sensor network synchronicity with realistic radio effects G Werner-Allen, G Tewari, A Patel, M Welsh, R Nagpal Proceedings of the 3rd international conference on Embedded networked sensor ...	499	2005
Sensor networks for high-resolution monitoring of volcanic activity M Welsh, G Werner-Allen, K Lorincz, O Marcillo, J Johnson, M Ruiz, ... Proceedings of the twentieth ACM symposium on Operating systems principles, 1-13	27	2005
Motelab: A wireless sensor network testbed G Werner-Allen, P Swieskowski, M Welsh IPSN 2005. Fourth International Symposium on Information Processing in ...	896	2005
Monitoring volcanic eruptions with a wireless sensor network G Werner-Allen, J Johnson, M Ruiz, J Lees, M Welsh Proceedings of the Second European Workshop on Wireless Sensor Networks ...	812	2005
Improving the Performance of a Data Collection Protocol P Swieskowski, G Werner-Allen Division of Engineering and Applied Sciences, Harvard University	2	2005
Infrasonic monitoring of eruptions at Tungurahua Volcano, Ecuador using a wireless sensor network G Werner-Allen, J Johnson, M Ruiz, JM Lees, M Welsh AGU Fall Meeting Abstracts 2004, SF44A-03	1	2004
Simulating the power consumption of large-scale sensor network applications V Shnayder, M Hempstead, B Chen, GW Allen, M Welsh	1579	2004

TITLE	CITED BY	YEAR
Proceedings of the 2nd international conference on Embedded networked sensor ...		
Motelab: A web-enabled sensor network testbed G Werner-Allen, M Welsh	3	2004
2021 IEEE International Symposium on Performance Analysis of Systems and Software (ISPASS) 978-1-7281-8643-6/21/\$31.00© 2021 IEEE DOI: 10.1109/ISPASS51385. 2021.00054 JL Abellán, NK Agarwal, JH Ahn, V Akella, A Akram, A Alawneh, ...		
Astorga, Angello 226 Bagherzadeh, Mojtaba 1178 Bai, Guangdong 66 Balasubramaniam, Gargi 1283 Ban, Gu 1038 S Adepu, N Aguirre, UZ Ahmed, M Akhin, A Aliyeva, V Alizadeh, ...		
EXPRESSING UNCERTAINTY USING THE MAYBE SYSTEM GC PI, O Kennedy, L Ziarek		
PocketData: Repeatable Benchmarking for Mobile Data Management Systems C Nuessle, G Wrazen, L Ziarek, G Challen, O Kennedy		
IPSN 2017 Technical Program Committee T Abdelzaher, Y Agarwal, A Cerpa, G Challen, M Chen, M Duarte, J Gao, ...		
New Interfaces for Achieving Power Agility on Mobile Devices G Prasad, G Challen, R Begum, M Hempstead		
Smartphone Users Want to Be Mocked G Buzzelli, N DiRienzo, G Challen		
Shattering the Hourglass: Towards Pervasive Sensor Networks P Bonnet, GW Challen		