Publications

John Edwards

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References

- [1] Aashish Ghimire, James Prather, and John Edwards. Generative AI in Education: A Study of Educators' Awareness, Sentiments, and Influencing Factors. In *IEEE International Conference on Frontiers in Education* (FIE). IEEE, 2024.
- [2] Jared Arnell, Hillary Swanson, Boyd Edwards, Kaden Hart, Sadra Jafari, and John Edwards. "Instead of gravity pointing down, it's now pointing up": Enhancing physics students' connection between mathematics and mechanism. In *Proceedings of the Physics Education Research Conference* (PERC), 2024.
- [3] Kaden Hart, Christopher Warren, Seth Poulsen, and John Edwards. Phone Use While Programming. In *Proceedings of The 17th International Conference on Educational Data Mining (EDM)*, 2024.
- [4] Aashish Ghimire and John Edwards. From Guidelines to Governance: A Study of AI Policies in Education. In *International Conference on Artificial Intelligence in Education (AIED)*, 2024.
- [5] Aashish Ghimire and John Edwards. Coding With AI: How Are Tools Like ChatGPT Being Used By Students In Foundational Programming Courses. In *International Conference on Artificial Intelligence in Education (AIED)*, 2024.
- [6] Jaxton Winder, Erik Falor, Seth Poulsen, and John Edwards. The Shell Tutor: An Intelligent Tutoring System For The UNIX Command Shell And Git. In ACM conference on Innovation and Technology in Computer Science Education (ITiCSE), 2024.
- [7] Jared Arnell, Hillary Swanson, Boyd Edwards, and John Edwards. Operational Routes: A Construct for Characterizing Intermediate Learners' Cognitive Navigational Strategies. In *International Conference of the Learning Sciences (ICLS)*, 2024.

- [8] Jaxton Winder, Elise Francis, Bridget Staley, and John Edwards. Incremental Development and CS1 Student Outcomes And Behaviors. In *The 26th Australasian Computing Education Conference (ACE)*, 2024.
- [9] Joshua Urry and John Edwards. A Framework that Explores the Cognitive Load of CS1 Assignments Using Pausing Behavior. In ACM Technical Symposium on Computing Science Education (SIGCSE), 2024.
- [10] Logan Hendricks and John Edwards. White-Label Bootcamps: Branding and Opinions. In *IEEE Intermountain Engineering*, Technology, and Computing Conference (i-ETC). IEEE, 2024.
- [11] Logan Hendricks and John Edwards. Coding Bootcamps: Employment Outcomes. In *IEEE Intermountain Engineering*, *Technology*, and *Computing Conference* (i-ETC). IEEE, 2024.
- [12] Caleb Syndergaard and John Edwards. Revisiting Plagiarism Deterrence in CS1 Through Keystroke Data. In *IEEE Intermountain Engineering*, *Technology*, and Computing Conference (i-ETC). IEEE, 2024.
- [13] Muhammad Fawad Akbar Khan, John Edwards, Paul Bodily, and Hamid Karimi. Mining Student Behavior Patterns for Enhanced Performance Prediction in Introductory Programming: Keystroke Analysis and Ensemble Strategies. In *IEEE International Conference on Big Data (BigData)*, 2023.
- [14] Stephanie Gonzales, Hillary Swanson, and John Edwards. Activity During High-Repetition Practice of Syntax. In *IEEE Intermountain Engineering*, *Technology*, and Computing Conference (i-ETC). IEEE, 2023.
- [15] Jaxton Winder, Erik Falor, and John Edwards. Early Submission of Project Analysis Milestones Correlates Positively With Student Project Performance; Incentives for This Early Project Analysis Positively Changes Student Behaviors. In *IEEE Intermountain Engineering, Technology, and Computing Conference (i-ETC)*. IEEE, 2023.
- [16] Aashish Ghimire, Rita Ghimire, and John Edwards. Metadata in Tweets: Broadcasting a Lot More Than What You Tweet. In *IEEE Intermountain Engineering*, Technology, and Computing Conference (i-ETC). IEEE, 2023.
- [17] Aashish Ghimire, Raj Shrestha, and John Edwards. Too Legal; Didn't Read (TLDR): Summarization of Court Opinions. In *IEEE Intermountain Engineering, Technology, and Computing Conference (i-ETC)*. IEEE, 2023.
- [18] Arto Hellas, Juho Leinonen, and John Edwards. Code Mimicking: The Impact of Program Output on Novice Programmers' Learning Gains. In *ACM* conference on Innovation and Technology in Computer Science Education (ITiCSE), 2023.

- [19] Steven Scott, Arto Hellas, Juho Leinonen, and John Edwards. Factors Affecting Compilable State at Each Keystroke in CS1. In ACM International Conference on Software Engineering (ICSE), Software Engineering Education and Training (SEET) track, 2023.
- [20] John Edwards, Kaden Hart, Raj Shrestha, et al. Review of csedm data and introduction of two public cs1 keystroke datasets. *Journal of Educational Data Mining*, 15(1):1–31, 2023.
- [21] Kaden Hart, Chad Mano, and John Edwards. Plagiarism Deterrence in CS1 Through Keystroke Data. In *ACM Technical Symposium on Computing Science Education (SIGCSE)*, 2023.
- [22] Kaden Hart, Christopher Warren, and John Edwards. Accurate Estimation of Time-on-Task While Programming. In ACM Technical Symposium on Computing Science Education (SIGCSE), 2023.
- [23] Boyd F Edwards, Cade Pankey, and John M Edwards. Inertial motion on the earth's spheroidal surface. *Chaos: An Interdisciplinary Journal of Nonlinear Science*, 2022.
- [24] John Edwards, Kaden Hart, and Christopher Warren. A Practical Model of Student Engagement While Programming. In *ACM Technical Symposium* on Computing Science Education (SIGCSE), 2022.
- [25] Delaney Moore, John Edwards, Hamid Karimi, Rajiv Khadka, and Paul Bodily. Temporal Abstract Syntax Trees for Understanding Student Coding Thought Process. In *IEEE Intermountain Engineering, Technology, and Computing Conference (i-ETC)*. IEEE, 2022.
- [26] Marina Johnson, Hillary Swanson, and John Edwards. Syntax Exercises and Their Effect on Computational Thinking. In *IEEE Intermountain Engineering, Technology, and Computing Conference (i-ETC)*. IEEE, 2022.
- [27] Aashish Ghimire and John Edwards. Introspection with Data: Using Personality Traits for Academic Major Selection. In *IEEE Intermountain Engineering*, Technology, and Computing Conference (i-ETC). IEEE, 2022.
- [28] Gordon Fjeldsted and John Edwards. Quantifying Student Struggles using Heatmaps and Keystroke Data. In *IEEE Intermountain Engineering*, *Technology*, and Computing Conference (i-ETC). IEEE, 2022.
- [29] Raj Shrestha, Juho Leinonen, Albina Zavgorodniaia, Arto Hellas, and John Edwards. Pausing While Programming: Insights From Keystroke Analysis. In ACM International Conference on Software Engineering (ICSE), Software Engineering Education and Training (SEET) track, 2022.
- [30] Raj Shrestha, Juho Leinonen, Arto Hellas, Petri Ihantola, and John Edwards. CodeProcess Charts: Visualizing the Process of Writing Code. In *The Twenty-Fourth Australasian Computing Education Conference (ACE)*, 2022.

- [31] Eric Bagley, Jessica Shumway, and John Edwards. Second-grade Students' Use of Visual Programming to Learn Multiplication: Leveraging the Concept of Iteration. In *The Twenty-Fourth Australasian Computing Education Conference (ACE)*, 2022.
- [32] Boyd F Edwards and John M Edwards. Geodetic Model for Teaching Motion on the Earth's Spheroidal Surface. *European Journal of Physics*, 2021. Accepted for publication.
- [33] Anna Ly, John Edwards, Michael Liut, and Andrew Petersen. Revisiting Syntax Exercises in CS1. In ACM Conference on Information Technology Education (SIGITE), 2021.
- [34] John Edwards, Cameron Krome, and Tracy Payne. Computation of Positively Graded Filiform Nilpotent Lie Algebras in Low Dimensions. *Symbolic Computation*, 2021. Accepted for publication.
- [35] Bishal Sainju, Christopher Hartwell, and John Edwards. Job satisfaction and employee turnover determinants in Fortune 50 companies: Insights from employee reviews from Indeed.com. *Decision Support Systems*, 2021. Accepted for publication.
- [36] Albina Zavgorodniaia, Raj Shrestha, Juho Leinonen, Arto Hellas, and John Edwards. Morning or Evening? An Examination of Circadian Rhythms of CS1 Students. In ACM International Conference on Software Engineering (ICSE), Joint Track on Software Engineering Education and Training (JSEET), 2021.
- [37] Shelsey Sullivan, Hillary Swanson, and John Edwards. Student attitudes toward syntax exercises in CS1. In *ACM Technical Symposium on Computing Science Education*, 2021.
- [38] Joseph Ditton, Hillary Swanson, and John Edwards. External imagery in computer programming. In *ACM Technical Symposium on Computing Science Education*, 2021.
- [39] John Edwards, Juho Leinonen, Albina Zavgorodniaia, Chetan Birthare, and Arto Hellas. Programming versus natural language: on the effect of context on typing in CS1. In *ACM International Computing Education Research (ICER) Conference*, 2020.
- [40] John Edwards, Joseph Ditton, Dragan Trninic, Shelsey Sullivan, Hillary Swanson, and Chad Mano. Syntax exercises in CS1. In ACM International Computing Education Research (ICER) Conference, 2020.
- [41] Steven Scott, Jaxon Willard, and John Edwards. High Dimensional Event Exploration over Multiple Simulations. In *IEEE Intermountain Engineering*, Technology, and Computing Conference (i-ETC). IEEE, 2020.

- [42] John Edwards, Joseph Ditton, Bishal Sainju, and Joshua Dawson. Different Assignments as Different Contexts: Predictors Across Assignments and Outcome Measures in CS1. In *IEEE Intermountain Engineering, Technology, and Computing Conference (i-ETC)*. IEEE, 2020.
- [43] Christopher Hartwell, Tyler Orr, and John Edwards. The Effect of Online Application Efficiency on Applicant Attrition. *International Journal of Selection and Assessment*, 2020.
- [44] John Edwards, Juho Leinonen, and Arto Hellas. A Study of Keystroke Data in Two Contexts: Written Language and Programming Language Influence Predictability of Learning Outcomes. In ACM Technical Symposium on Computing Science Education. ACM, 2020.
- [45] John Edwards, Erika Fulton, Jonathan Holmes, Joseph Valentin, David Beard, and Kevin Parker. Separation of syntax and problem solving in Introductory Computer Programming. In *IEEE International Conference* on Frontiers in Education (FIE). IEEE, 2018.
- [46] Lloyd Griffel, Donna Delparte, and John Edwards. A machine learning approach using spectral signatures to detect potato plants infected with Potato Virus Y. *Precision Agriculture*, 2018.
- [47] DeWayne Derryberry, Ken Aho, John Edwards, and Teri Peterson. Model selection and regression t-statistics. *The American Statistician*, 0(0):1–3, 2018.
- [48] Sidharth Kumar, Duong Hoang, Steve Petruzza, Valerio Pascucci, and John Edwards. Reducing network congestion and synchronization overhead during data aggregation when writing hierarchical data. In *IEEE International* Conference on High Performance Computing, Data, and Analytics. IEEE, 2017.
- [49] Nathan Morrical and John Edwards. Parallel quadtree construction on collections of objects. *Computers and Graphics*, 66:162–168, 2017.
- [50] Boyd F Edwards and John M Edwards. Periodic nonlinear sliding modes for two uniformly magnetized spheres. *Chaos: An Interdisciplinary Journal of Nonlinear Science*, 27(5):053107, 2017.
- [51] Xin Tong, John Edwards, Chun-Ming Chen, Han-Wei Shen, Chris R Johnson, and Pak Chung Wong. View-dependent streamline deformation and exploration. *IEEE transactions on visualization and computer graphics*, 22(7):1788–1801, 2016.
- [52] John Edwards, Sidharth Kumar, and Valerio Pascucci. Big data from scientific simulations. In L. Grandinetti, G.R. Joubert, M. Kunze, and V. Pascucci, editors, Big Data and High Performance Computing, pages 32–46. IOS Press, Amsterdam, Berlin, Tokyo, Washington, DC, 2015.

- [53] John Edwards, Eric Daniel, Valerio Pascucci, and Chandrajit Bajaj. Approximating the Generalized Voronoi Diagram of closely spaced objects. *Computer Graphics Forum*, 34(2):299–309, 2015.
- [54] Sidharth Kumar, John Edwards, Peer-Timo Bremer, Aaron Knoll, Cameron Christensen, Venkatram Vishwanath, Philip Carns, John Schmidt, Valerio Pascucci, et al. Efficient I/O and storage of adaptive-resolution data. In *High Performance Computing, Networking, Storage and Analysis, SC14: International Conference for*, pages 413–423. IEEE, 2014.
- [55] John Edwards, Eric Daniel, Justin Kinney, Tom Bartol, Terrence Sejnowski, Daniel Johnston, Kristen Harris, and Chandrajit Bajaj. Vol-RoverN: Enhancing surface and volumetric reconstruction for realistic dynamical simulation of cellular and subcellular function. *Neuroinformatics*, 12(2):277–289, 2014.
- [56] John Edwards, Wenping Wang, and Chandrajit Bajaj. Surface segmentation for improved remeshing. In *Proceedings of the 21st International Meshing Roundtable*, pages 403–418. Springer, 2013.
- [57] John Edwards and Chandrajit Bajaj. Topologically correct reconstruction of tortuous contour forests. *Computer-Aided Design*, 43(10):1296–1306, 2011.
- [58] Joel Alberts, John Edwards, Josh Johnston, and Jeff Ferrin. 3D visualization for improved manipulation and mobility in EOD and combat engineering applications. In SPIE Defense, Security, and Sensing, page 43. International Society for Optics and Photonics, 2009.