Aaron R. Averett

Professional Summary

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Professional Preparation

Academic Background

B.S. Geography, Texas A&M, 2006

Professional Appointments

Apple iOS App Developer, freelance (2010-Present)
Development and full application life-cycle management of multiple software applications for the Apple iOS platform; familiarity with touchscreen software design, retail software marketing, customer service, and Apple development tools and technologies.

Present Position: Research Scientist Associate, Bureau of Economic Geology, The University of Texas at Austin (October 2006 - Present). Development and maintenance of multiple server and client software applications for the Windows and Linux operating systems and provision of support for remote sensing equipment as needed.

Website Administrator, Texas A&M University, Psychology Department (2002 - 2006). Development of Internet-based database and Website management tools and maintenance of the department's Website; migration of department Website from static HTML format to dynamic PHP/MySQL-based format; technical support and assistance for department's network administrator.

Private Contractor, Website Development, Various clients (2000 - 2005). Design and development of Internet-based content management system for use in rapidly deploying, attractive, simple-to-manage Websites based on Linux/Apache/MySQL/PHP platform; design and development of Internet-based data-acquisition system for use in collecting scientific survey over the Web; implementation of a computer-based training and reference-manual system using Lotus Notes and Microsoft Windows HTML Help.

Areas of Expertise

Areas of Expertise

Databases: Microsoft SQL Server, MySQL, Microsoft Access, Lotus Notes

GIS Packages: ArcGIS 9.x/10, Schlumberger Petrel, Google Maps API, Google Earth

Graphics/Media: Autodesk Autocad, Adobe Photoshop, and Macromedia Dreamweaver

Many programming languages: C#/ASP.NET, Objective-C, PHP, Javascript, xHTML

Platforms: Microsoft Windows, Linux/Unix, Apple iOS, Mac OS X

Presentations

Presentations

Analysis of Arctic summer sea ice heights to validate ICESat-2 measurements with airborne

lidar technology: presented to public, presented at International Glaciology Society Symposium 2023, Bremerhaven, Germany, June 5-9, 2023.

Mount Bonnell as an Urban Geoheritage Site in Austin, Texas: presented to Geological Society of America, presented at GSA Connects 2022, Denver, Colorado, October 10, 2022.

GPR for bathymetry of the Devils River, Texas: presented at 33rd Symposium on the Application of Geophysics to Engineering and Environmental Problems, online, March 18, 2021.

Rapid response on the Texas coast: acquiring post-Harvey lidar and imagery to assess storm impact and monitor recovery: presented to Texas Chapter American Shore & Beach Preservation Association, presented at ASBPA Texas Chapter 2018 Symposium, Corpus Christi, Texas, April 24, 2018.

The Rocks Have Names - Integrating IGSN with an Existing Digital Sample Catalog: presented to United States Geological Survey, presented at National Geological and Geophysical Data Preservation Program Workshop, Salt Lake City, Utah, September 28, 2017.

The Time is Right for Registering Physical Samples and Assigning IGSN's -- Workflows, Stumbling Blocks, and Successes: presented to American Geophysical Union, presented at AGU Fall Conference, San Francisco, Calif., December 15, 2016.

Advancing Public Access to Oil and Gas Data Using Web GIS: presented to Texas Water Development Board, presented at Texas GIS Forum, Austin, Tex., October 27, 2016.

Publications

Peer Reviewed Journal Articles

Saylam, K., Briseno, A., Averett, A. R., and Andrews, J. R., 2023, Analysis of depths derived by airborne lidar and satellite imaging to support bathymetric mapping efforts with varying environmental conditions: lower Laguna Madre, Gulf of Mexico: Remote Sensing, v. 15, no. 5754, 23 p., http://doi.org/10.3390/rs15245754.

Saylam, K., Averett, A. R., Costard, L., Wolaver, B. D., and Robertson, S., 2020, Multi-Sensor Approach to Improve Bathymetric Lidar Mapping of Semi-Arid Groundwater-Dependent Streams: Devils River, Texas: Remote Sensing, v. 12, no. 2491, 24 p., http://doi.org/10.3390/rs12152491.

Saylam, K., Hupp, J. R., Andrews, J. R., Averett, A. R., and Knudby, A. J., 2018, Quantifying Airborne Lidar Bathymetry quality-control measures: a case study in Frio River, Texas: Sensors, v. 18, no. 12, p. 4153, http://doi.org/10.3390/s18124153.

Saylam, K., Hupp, J. R., Averett, A. R., Gutelius, W. F., and Gelhar, W. B., 2018, Airborne lidar bathymetry: assessing quality assurance and quality control methods with Leica Chiroptera examples: International Journal of Remote Sensing, v. 39, no. 8, p. 2518-2542, http://doi.org/10.1080/01431161.2018.1430916.

Peer Reviewed Book Chapters

Paine, J. G., Costard, L., Andrews, J., Averett, A., Saylam, K., and Hupp, J., 2021, Determining annual to decadal subsidence areas and rates using airborne lidar, GPS surveys, and topographic maps at the Wink sinkholes, West Texas, in Johnson, K. S., Land, L., and Decker, D. D., eds., Evaporite karst in the Greater Permian Evaporite Basin (GPEB) of Texas, New Mexico, Oklahoma, Kansas, and Colorado: Norman, Oklahoma, Oklahoma Geological Survey, Circular, v. 113, p. 93-103.

Non Peer Reviewed Journal Articles

Paine, J. G., Andrews, J. R., Saylam, K., Tremblay, T. A., Averett, A. R., Caudle, T. L., Meyer, T., and Young, M. H., 2013, Airborne lidar on the Alaskan North Slope: wetlands mapping, lake volumes, and permafrost features: The Leading Edge, v. 32, no. 7, p. 798-805.

Conference Proceedings

Saylam, K., Hupp, J. R., and Averett, A. R., 2017, Quantifying the bathymetry of the lower Colorado River basin, Arizona, with airborne Lidar, American Society of Photogrammetry and Remote Sensing (ASPRS), IGTF 2017, Baltimore, Md., 12 p.

Contract Reports

Kyle, J. R., Hoffman, C., Short, S., Averett, A. R., Elliott, B. A., and DeJarnett, B. B., 2024, Compilation of Geologic Samples and Information Produced during Historic Minerals Exploration in Texas, Relevant to U.S. Critical Minerals Resource Assessment: The University of Texas at Austin, Jackson School of Geosciences, Bureau of Economic Geology, Contract Report for FY 2021 & FY 2022 prepared for U.S. Geological Survey National Geological and Geophysical Data Preservation Program, under contract no. G21AP10637 and G22AP00423, 61 p.

Paine, J. G., Averett, A. R., Grunau, B., Morris, J., and Piejko, W. A., 2024, Surface Casing Estimator Site, FY2024: The University of Texas at Austin, Bureau of Economic Geology, Final Report prepared for Railroad Commission of Texas, under contract no. FA00002453, 13 p.

Paine, J. G., Morris, J., Grunau, B., and Averett, A. R., 2024, Survey of geophysical log collections held by state geological surveys and other agencies, United States: The University of Texas at Austin, Bureau of Economic Geology, Final Report prepared for U.S. Geological Survey, under contract no. G20AC00421, 73 p. p.

Elliott, B. A., DeJarnett, B. B., Kyle, J. R., Andrews, J. R., Averett, A. R., and Childress, T., 2023, CONTRACT REPORT FOR FY 2019 & FY 2020 NATIONAL GEOLOGICAL & GEOPHYSICAL DATA PRESERVATION PROJECT
NGDPP G19AS00009 & G20AS00008: Final Report prepared for NGGDPP, under contract no. G19AS00009, G20AS00008, 46 p.

Paine, J. G., Averett, A. R., Morris, J., Grunau, B., Piejko, W. A., and Paine, M. J., 2023, Surface casing estimator, site, FY2023: The University of Texas at Austin, Bureau of Economic Geology, Final Report prepared for Railroad Commission of Texas, under contract no. FA00001320, 11 p.

Paine, J. G., Averett, A. R., Banerji, D., Makanyaga, S., and Piejko, W., 2022, Surface casing estimator site, FY2022: The University of Texas at Austin, Bureau of Economic Geology, final report, under contract no. UTA21-000395, 9 p.

Paine, J. G., Banerji, D. A., Averett, A. R., and Makanyaga, S., 2021, Surface casing estimator site, FY2021: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for Railroad Commission of Texas, under contract no. UTA20-000813, 15 p.

Paine, J. G., Banerji, D., Averett, A. R., Makanyaga, S., and Ortuno, J., 2021, Surface Casing Estimator Site, 2019-2020: Bureau of Economic Geology, The University of Texas at Austin, Final Report prepared for Railroad Commission of Texas, under contract no. UTA19-000782, 7 p.

Paine, J. G., Banerji, D., Averett, A. R., and Ortuno, J., 2019, Surface casing estimator site, 2018-2019: Bureau of Economic Geology, The University of Texas at Austin, Final Report prepared for Railroad Commission of Texas, under contract no. RRC IAC No. 455-19-8435, 7 p.

Collins, E. W., Averett, A. R., and Ortuno, J., 2018, FY18 Surface Casing Estimator Site Final Report: Bureau of Economic Geology, prepared for Railroad Commission of Texas, under contract no. UTA17-001427, 8 p.

Collins, E. W., Averett, A. R., and Jeremy Ortuno, 2017, Final Report for the FY17 Surface Casing Estimator Site Project: The University of Texas at Austin, Bureau of Economic Geology, Final Report prepared for Railroad Commission of Texas, under contract no. 14-000903, 7 p.

Brown, R., Paine, J. G., Saylam, K., Tremblay, T. A., Andrews, J. R., and Averett, A. R., 2016, Mangrove monitoring using airborne VNIR in the Espiritu Santo Bay area, central Texas coast: Bureau of Economic Geology, The University of Texas at Austin, Final Report prepared for

General Land Office, under contract no. 14-078-000-7946, 38 p.

Collins, E. W., Averett, A. R., and Ortuno, J., 2016, Final Report for the FY16 Surface Casing Estimator Site Project: The University of Texas at Austin, Bureau of Economic Geology, Final Report prepared for Railroad Commission of Texas, under contract no. UTA14-104, 7 p.

Saylam, K., Hupp, J. R., Andrews, J. R., and Averett, A. R., 2016, Colorado River Lower Basin, Airborne Lidar Bathymetry Survey: The Bureau of Economic Geology, Final contract report prepared for The U.S. Bureau of Reclamation, under contract no. UTA15-001236, 31 p.

Collins, E. W., Tremblay, T. A., Averett, A. R., and Ortuno, J., 2015, Final Report: FY15 Surface Casing Estimator Site Project: The University of Texas at Austin, Bureau of Economic Geology, prepared for Railroad Commission of Texas, under contract no. UTA-14-000903, 7 p.

Saylam, K., Andrews, J. R., Hupp, J. R., Averett, A. R., Brown, R., and Young, M. H., 2015, Determining lake depths and volumes and classifying wetlands using airborne lidar and satellite imagery on the Alaskan North Slope, Deadhorse area, Alaska: Bureau of Economic Geology, University of Texas at Austin, Contract report prepared for Great Bear Petroleum (LLC), under contract no. UTA12-0000752, 69 p.

Collins, E. W., Tremblay, T. A., Averett, A. R., and Ortuno, Jeremy, 2014, FY14 Surface Casing Estimator Site Project: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for Railroad Commission of Texas, under contract no. UTA13-103, 7 p.

Saylam, K., Andrews, J. R., Averett, A. R., Hupp, J. R., Young, M. H., and Ekercin, S., 2014, Determining lake depths and area sizes on the North Slope, Deadhorse area, Alaska: The University of Texas at Austin, Bureau of Economic Geology, contract report prepared for Great Bear Petroleum LLC, under contract no. UTA14-000820, 27 p.

Collins, E. W., Tremblay, T. A., Averett, A. R., and Ortuño, J., 2013, Final Report for the FY13 Surface Casing Estimator Site Project: The University of Texas at Austin, Bureau of Economic Geology, contract report prepared for Railroad Commission of Texas under, contract reference number 455-13-0049, 7 p.

Collins, E. W., Tremblay, T. A., Averett, A. R., and Ortuño, J., 2012, Final Report for the FY12 Surface Casing Estimator Site Project: The University of Texas at Austin, Bureau of Economic Geology, contract report prepared for Railroad Commission of Texas, under contract number UTA11-000730, 7 p.

Paine, J. G., Young, M. H., Andersson, D., Andrews, J. R., Averett, A. R., Caudle, Tiffany, Gustafsson, D., Kullenberg, P., and Tremblay, T. A., 2012, Determining wetlands distribution, lake depths, and topography using airborne lidar and imagery on the North Slope, Deadhorse Area, Alaska: The University of Texas at Austin, Bureau of Economic Geology, data-acquisition report prepared for Great Bear Petroleum Operating LLC, under Sponsored Research Agreement UTA120000752, 15 p.

Collins, E. W., Tremblay, T. A., Averett, A. R., and Ortuño, J., 2011, Final report for the FY11 Surface Casing Estimator Site Project: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for Texas Commission on Environmental Quality, under contract number 582-11-12225, 9 p.

Ortuno, Daniel, Averett, A. R., Clift, S. J., and Paine, J. G., 2011, Locating, scanning, and delivering digital geophysical well logs and associated data for brackish resources aquifer characterization system (BRACS): The University of Texas at Austin, Bureau of Economic Geology, report prepared for Texas Water Development Board, under contract no. 1100011198, 8 p.

Computer Applications and Internet

Collins, E. W., Averett, A. R., and Ortuno, J., 2018, Surface Casing Estimator site (data additions for Texas counties Culberson, Reeves, Loving, Pecos, Cochran, Hockley, and Irion:

The University of Texas at Austin, Bureau of Economic Geology, http://www.beg.utexas.edu/research/areas/groundwater-studies/surface-casing-estimator.

Collins, E. W., Averett, A. R., and Ortuno, J., 2017, Surface Casing Estimator site (data additions for Texas counties Andrews, Crockett, Dawson, Gaines, Glasscock, Howard, Martin, and Yoakum): The University of Texas at Austin, Bureau of Economic Geology, http://www.beg.utexas.edu/research/areas/groundwater-studies/surface-casing-estimator.

Collins, E. W., Averett, A. R., Tremblay, T. A., and Ortuno, J., 2015, Surface Casing Estimator site (data additions for the Texas counties of Colorado, Austin, Washington, Grimes, Walker, Trinity, Upton, and Reagan): The University of Texas at Austin, Bureau of Economic Geology, http://www.beg.utexas.edu/sce/index.html.

Collins, E. W., Averett, A. R., Tremblay, T. A., and Ortuno, J., 2014, Surface Casing Estimator site (data additions for Texas counties of Zavalla, Frio, Duval, Guadalupe, Lavaca, Ector, Crane, and Midland): The University of Texas at Austin, Bureau of Economic Geology, http://www.beg.utexas.edu/sce/index.html.

Collins, E. W., Tremblay, T., Averett, A. R., and Ortuno, J., 2013, Surface Casing Estimator site (data additions for Texas counties Atascosa, Wilson, Karnes, DeWitt, Bee, Webb, Dimmit, and Maverick): The University of Texas at Austin, Bureau of Economic Geology, http://www.beg.utexas.edu/research/areas/groundwater-studies/surface-casing-estimator.

Collins, E. W., Tremblay, T., Averett, A. R., and Ortuno, J., 2012, Surface Casing Estimator site (data additions for Texas counties Ellis, Navarro, Freestone, and Limestone): The University of Texas at Austin, Bureau of Economic Geology, http://www.beg.utexas.edu/research/areas/groundwater-studies/surface-casing-estimator.

Collins, E. W., Tremblay, T., Averett, A. R., and Ortuno, J., 2011, Surface Casing Estimator site (data additions for Texas counties Anderson, Rusk, Panola, Cherokee, Harrison, Winkler, and Ward): The University of Texas at Austin, Bureau of Economic Geology, http://www.beg.utexas.edu/research/areas/groundwater-studies/surface-casing-estimator.

Collins, E. W., Tremblay, T., Averett, A. R., and Baumgardner Jr., R.W., 2010, Surface Casing Estimator site (data additions for Texas counties Houston, Dallas, Hill, Bosque, McLennan, Coryell, and Hamilton): The University of Texas at Austin, Bureau of Economic Geology, http://www.beg.utexas.edu/research/areas/groundwater-studies/surface-casing-estimator.

Collins, E. W., Tremblay, T., and Averett, A. R., 2009, Surface Casing Estimator site (data additions for Texas counties Wise, Parker, Hood, Erath): The University of Texas at Austin, Bureau of Economic Geology, http://www.beg.utexas.edu/research/areas/groundwater-studies/surface-casing-estimator.

Collins, E. W., Tremblay, T., and Averett, A. R., 2008, Surface Casing Estimator site (data additions for Texas counties Johnson, Tarrant, and Denison): The University of Texas at Austin, Bureau of Economic Geology, http://www.beg.utexas.edu/research/areas/groundwater-studies/surface-casing-estimator.

Collins, E. W., Tremblay, T., and Averett, A. R., 2007, Surface Casing Estimator site (data additions for Texas counties Gonzales, Fayette, Caldwell, and Bastrop): The University of Texas at Austin, Bureau of Economic Geology, http://www.beg.utexas.edu/research/areas/groundwater-studies/surface-casing-estimator.

Raney, J. A., Collins, E. W., Tremblay, T., and Averett, A. R., 2006, Surface Casing Estimator site (data additions for Texas counties Burleson, Lee, and Milam): The University of Texas at Austin, Bureau of Economic Geology, http://www.beg.utexas.edu/research/areas/groundwater-studies/surface-casing-estimator.

Published Abstracts

Costard, L., Saylam, K., Averett, A., Wolaver, B., and Robertson, S., 2021, GPR for bathymetry

of the Devils River, Texas (abs.): SAGEEP 2021: 33rd Symposium on the Application of Geophysics to Engineering and Environmental Problems, March 14-19, online, p. 177, http://doi.org/10.4133/sageep.33-088.

Paine, J. G., Averett, A. R., Andrews, J. R., Caudle, T., Hupp, J., and Saylam, K., 2019, Rapid response on the Texas coast: acquiring post-Harvey lidar and imagery to assess storm impact and monitor recovery (abs.): 45th International Association of Aquatic and Marine Science Libraries and Information Centers (IAMSLIC) Annual Conference and 29th SAIL Regional Meeting, Port Aransas, Texas, October 20-25, p. 22.

Paine, J. G., Averett, A. R., Andrews, J. R., and Hupp, J. R., 2018, Rapid response on the Texas coast: acquiring Post-Harvey lidar and imagery to assess storm impact and monitor recovery (abs.): 2018 National Coastal Conference, American Shore & Beach Preservation Association, October 29-November 2, 2018, Galveston, Texas, no. 5C-1.

Collins, E. W., Tremblay, T. A., Averett, A. R., and Ortuno, Jeremy, 2015, A website for groundwater protection information in Texas: surface casing estimator site (abs.): Geological Society of America, South-Central Section 49th Annual Meeting.

Paine, J. G., Collins, E. W., Yang, D., Andrews, J. R., Averett, A. R., Caudle, T., and Saylam, K., 2015, Quantifying monthly to decadal subsidence and assessing collapse potential in a Texas oilfield using airborne lidar, radar interferometry, and microgravity (abs.): American Association of Petroleum Geologists and Society of Exploration Geophysicists International Conference and Exhibition, Melbourne, Australia, September 13-16, 2015, no. 2212411, 1 p.

Paine, J. G., Collins, E. W., Yang, Dochul, Andrews, J. R., Averett, A. R., Caudle, T., and Saylam, K., 2015, Quantifying monthly to decadal subsidence and assessing collapse potential near the Wink sinkholes, West Texas, using airborne lidar, radar interferometry, and microgravity (abs.): Geological Society of America, South-Central Section 49th Annual Meeting.

Paine, J. G., Andrews, J. R., Saylam, K., Averett, A. R., Caudle, T., Collins, E. W., and Yang, D., 2014, Quantifying monthly to decadal subsidence rates and magnitudes near the Wink sinkholes, west Texas, using airborne lidar and radar interferometry (abs.): Proceedings, 27th Annual Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP), Boston, Massachusetts, March 16-20.

Paine, J. G., Collins, E. W., Yang, Dochul, Andrews, J. R., Averett, A. R., Caudle, T., and Saylam, K., 2014, Quantifying monthly to decadal subsidence and assessing collapse potential near the Wink sinkholes, west Texas, using airborne lidar, radar interferometry, and microgravity [invited] (abs.): American Geophysical Union Fall Meeting, San Francisco, California, December 18, 2014.

Andrews, J. R., Dunlap, D. B., Standen, A. R., Averett, A. R., Cutright, B. L., and Murphy, Sean, 2013, An Immersive 3D Presentation of Permian Basin Geology; a Web Portal Prototype for Accessing Online Geologic Data (abs.): presented at West Texas Geological Society Fall Symposium, September 26, 2013.

Dunlap, D. B., Andrews, J. R., Standen, A. R., Averett, A. R., Cutright, B. L., and Murphy, B., 2013, A three-dimensional geologic model and geo-referenced database for Texas (3-D-T) (abs.): presented at West Texas Geological Society Fall Symposium, September 26, 2013.

Paine, J. G., Andrews, J. R., Saylam, K., Tremblay, T. A., Averett, A. R., Caudle, Tiffany, Meyer, T., and Young, M. H., 2013, Airborne lidar on the Alaskan North Slope: wetlands mapping, lake volumes, and permafrost features (abs.): Extended Abstracts, Society of Exploration Geophysicists Annual Meeting, DOI http://dx.doi.org/10.1190/segam2013-1488.1, p. 5250-5251.

Paine, J. G., Young, M. H., Saylam, K., Andrews, J. R., Averett, A. R., Caudle, T., Karlsson, T., Meyer, T., and Tremblay, T. A., 2013, Determining wetlands distribution, lake depths, and topography using airborne lidar and imagery on the North Slope, Alaska (abs.): Proceedings of the Symposium on the Application of Geophysics to Engineering and Environmental Problems,

Denver, Colorado.

Published Datasets

Andrews, J. R., Saylam, K., Averett, A. R., and Costard, L., 2022, Topographic and bathymetric lidar, orthophotos, sonar, and GPR data of and along the Devils River from Juno to Lake Amistad, Texas (Pool Data 01 of 01): Hydrogeology of the Devils River Watershed, Val Verde County, Texas, http://doi.org/10.18738/T8/UUTBB8.