

## Brianna B. Posadas, Ph.D.

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[Google Scholar](https://scholar.google.com/citations?user=...) | [LinkedIn](https://www.linkedin.com/in/...) | [Twitter](https://twitter.com/...)

### EDUCATION

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- Ph.D.**, Human-Centered Computing, University of Florida 08/2020  
*Concentration:* Communicating Privacy Policy  
*Dissertation:* Crowdsourcing Ground Truth Data Collection for Precision Agriculture  
Using a Citizen Science Mobile Application  
*Advisor:* Juan E. Gilbert | ACM Fellow
- M.S.**, Agricultural Engineering, University of Florida 05/2016  
*Minor:* Agricultural Education and Communication  
*Thesis:* Development of Detection Algorithms for Apple Disease Using Hyperspectral Data  
*Advisor:* Wonsuk “Daniel” Lee
- B.S.**, Engineering, Harvey Mudd College 05/2013  
*Concentration:* Psychology

### WORK EXPERIENCE

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- Assistant Professor** 01/2022-Present  
School of Plant and Environmental Sciences, Virginia Tech, Blacksburg, VA
- Data Science for the Public Good Faculty Fellow** 05/2021-Present  
Department of Agricultural and Applied Economics, Virginia Tech, Blacksburg, VA
- Computing Research Association Computing Innovation Postdoctoral Fellow** 09/2020-12/2021  
Agricultural, Leadership, and Community Education, Virginia Tech, Blacksburg, VA
- Postdoctoral Technology Fellow** 05/2020-08/2020  
Media Democracy Fund, Washington, D.C.
- Media Democracy Fund PhDx Fellow** 06/2018-08/2018  
National Hispanic Media Coalition, Washington, D.C.
- Media Democracy Fund PhDx Fellow** 05/2017-07/2017  
Upturn, Washington, D.C.
- Graduate Research Assistant** 08/2016-05/2020  
Department of Computer and Information Sciences, University of Florida, Gainesville, FL
- Interviewer** 08/2014-08/2020  
InitialView, Beijing, China
- Graduate Research Assistant** 08/2014-05/2016  
Department of Agricultural and Biological Engineering, University of Florida, Gainesville, FL
- Academic Consultant** 06/2013-04/2014  
AIC Education, Shenzhen, China

### RESEARCH EXPERTISE

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Human-Computer Interaction, Precision Agriculture, User-Centered Design, Technology Policy

### PUBLICATIONS

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#### Book Chapters

**Posadas, B.B.**, Ogunyiola, A., and Niewolny, K. (2022) Socially responsible AI assurance in precision agriculture for farmers and policymakers. In F.A. Batarseh & L. Freeman (Eds.), *AI Assurance: Towards Valid, Explainable, and Ethical AI*. Elsevier’s Academic Press.

### Peer-Reviewed Journals

**Posadas, B.B.**, Franco, R.A., Upasani, S., Srinivasan, D., Leonessa, A., and Niewolny, K. (2023) Affordable Flexible Robotics to Aid Farmers with Mobility Limitations: An Interview Approach to Understand Farmers Perception of Wearable Assistive Technology. *American Journal of Industrial Medicine*. *Under Review*

**Posadas, B.**, Niewolny, K., & Gardezi, M. (2023) A Review of Low-Cost Unmanned Aerial Vehicles for Precision Agriculture: Implications For Sustainable Farming Systems. In *Proceedings of the National Conference on Next Generation Sustainable Technologies for Small Scale Producers*. *Under Review*

Iqbal, M. A., **Posadas, B. B.**, Qin, F., Liu, B., & Siddique, A. (2023). AgFAB – A Farmer-centered Agricultural Bower. *EAI Endorsed Transactions on Industrial Networks and Intelligent Systems*, 10(1), e2. <https://doi.org/10.4108/eetinis.v10i1.2714>

**Posadas, B. B.**, Hanumappa, M., Niewolny, K., & Gilbert, J. E. (2021). Design and evaluation of a crowdsourcing precision agriculture mobile application for Lambsquarters, mission LQ. *Agronomy*, 11(10), 1951.

**Posadas, B. B.**, & Gilbert, J. E. (2020) Regulating Big Data in Agriculture. *IEEE Technology and Society Magazine*, 39(3), 86-92.

**Posadas, B. B.**, Hanumappa, M., & Gilbert, J. E. (2020) Early Development and Design of Crowdsourcing Agriculture Mobile Application for Lambsquarters. *CLEI ELECTRONIC JOURNAL*, 23(2).

Brinkley, J., Huff, E.W., **Posadas, B.**, Woodward, J., Daily, S.B., Gilbert, J.E. (2020) Exploring the Needs, Preferences, and Concerns of Persons with Visual Impairments Regarding Autonomous Vehicles. *ACM Trans. Access. Comput.* 13, 1, Article 3.

Brinkley, J., **Posadas, B.**, Sherman, I., Daily, S. B., & Gilbert, J. E. (2019) An Open Road Evaluation of a Self-Driving Vehicle Human–Machine Interface Designed for Visually Impaired Users. *International Journal of Human–Computer Interaction*, 1-15.

**Posadas, B. B.**, Lee, W. S., Galindo-Gonzalez, S., Hong, Y., & Kim, S. (2016) State of Knowledge of Apple Marssonina Blotch (AMB) Disease among Gunwi Farmers. *Journal of Biosystems Engineering*, 41(3), 255-262.

### Peer-Reviewed Conference Papers

**Posadas, B.**, Hanumappa, M., & Gilbert, J.E. (2019) Opinions Concerning Crowdsourcing Applications in Agriculture in D.C. VIII Latin American Conference on Human-Computer Interaction. Panama City, Panama., September 30 – October 4, 2019.

Huff, E., Dellamaria, N., **Posadas, B.** & Brinkley, J. (2019). Am I Too Old To Drive? Opinions of Older Adults on Self Driving Vehicles. In *Proceedings of the 21st International ACM SIGACCESS Conference on Computers and Accessibility*. ACM.

Sherman, I., **Posadas, B.**, Smarr, S., & Gilbert, J.E. (2018) My Finger, My Face, My Choice: A Preliminary Study Exploring the use of Biometric Authentication on Mobile Devices and the Implications for Voter Verification. Presented at Who Are You!? The Adventures in Authentication Workshop (WAY), Baltimore, MD, August 15-17, 2018.

Williams, A., Sherman, I., Smarr, S., **Posadas, B.**, and Gilbert, J. (2018) Human Trust Factors in Image Analysis. In *9th International Conference on Applied Human Factors and Ergonomics*, Orlando, FL, July 22 – 26, 2018.

Williams, A., **Posadas, B.**, Prioleau, D., Laurenceau, I., and Gilbert, J. (2018) User Perceptions of Haptic Fidgets for Mobile Devices on Attention and Comprehension. In *9th International Conference on Applied Human Factors and Ergonomics*, Orlando, FL, July 22 – 26, 2018.

Brinkely, J., **Posadas, B.**, Woodward, J., and Gilbert, J.E. (2017) Opinions and Preferences of Blind and Low Vision Consumers Regarding Self-Driving Vehicles: Results of Focus Group Discussions. In ASSETS '17 Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility, Baltimore, MD, pp. 290-299, October 20 - November 01, 2017.

Smarr, S., Sherman, I.N., **Posadas, B.**, and Gilbert, J.E. (2017) Prime III: Voting for a More Accessible Future. In ASSETS '17 Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility, Baltimore, MD, pp. 335-336, October 20 - November 01, 2017.

**Posadas, B.**, Sherman, I., Mahendran, D., Burgalia, G. and Gilbert, J.E. (2017) A Focus Group Study of Blind Voters in Alachua County. In Proceedings of the Human Factors and Ergonomics Society 2017 Annual Meeting. Austin, TX, pp. 1111-1113.

**Posadas, B. B.**, Lee, W. S., Hong, Y., & Kim, S. (2015) Detecting Marssonina Blotch Using Hyperspectral Imaging and Hierarchical Clustering. In 2015 ASABE Annual International Meeting (p. 1). American Society of Agricultural and Biological Engineers.

#### *Other Writings*

Garcia, A., Badillo-Urquiola, K., **Posadas, B.**, Roldan, W. [Latina Computing Professionals Panel at Tapia 2022!](#), Association for Computing Machinery – Women in Computing. November 21, 2022.

**Posadas, B.** [Facebook: connect, share, and fuel hate speech](#). Latinx Mic. August 1, 2018.

**Posadas, B.** [How strategic is Chicago's "Strategic Subjects List"? Upturn investigates](#). Equal Future. June 22, 2017.

## **PRESENTATIONS**

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### *Panelist*

Trajectory of Hispanic Women Professionals: Challenges and Strategies, ACM Special Interest Group on Computer Science Education (SIGCSE): Technical Symposium on Computer Science Education, Toronto, Ontario, CA, March 15-18, 2023. *Accepted*

Faculty Panel, Undergraduate Consortium, AAAI Conference on Artificial Intelligence, Washington D.C., February 7-14, 2023.

Career Panel for Computer Science PhD Students. NSF S-STEM at the University of Florida, December 9, 2022

Building a LatinX Community in Academia, Association for Computing Machinery's Richard Tapia Celebration of Diversity in Computing, Washington, D.C., September 7-10, 2022.

Becoming a Latina Computing Professional: Barriers and Accomplishments, Association for Computing Machinery's Richard Tapia Celebration of Diversity in Computing, Washington, D.C., September 7-10, 2022.

Dealing with Bias and Unfairness in AI, Association for Computing Machinery's Richard Tapia Celebration of Diversity in Computing, San Diego, CA, September 18-21, 2019.

Ethics in Data Science, Broadening Participation in Data Mining, Howard University, Washington, D.C., February 2-4, 2019.

Dealing with Bias and Unfairness in Machine Learning Algorithms, Association for Computing Machinery's Richard Tapia Celebration of Diversity in Computing, Orlando, FL, September 19-22, 2018.

### Poster Presentation

**Posadas, B.** (2022) Socially Responsible AI Assurance in Precision Agriculture for Farmers and Policymakers. Poster session presented at the meeting of Networking and Information Technology Research and Development 30th Anniversary Symposium, Washington, D.C., May 25, 2022.

**Posadas, B.** (2019) User-Centered Design for Data Collection in Precision Agriculture. Poster presented at 16th Annual Yale Bouchet Conference, Yale University, April 5-6, 2019.

**Posadas, B.,** (2018) A Survey of Low-Cost Precision Agricultural Technologies. Poster presented at GEM-ASEE Doctoral Engineering Research Showcase, Washington, D.C., January 21-22, 2018.

**Posadas, B. B.,** Waters, S., Gilbert, J. (2017) Extending the Privacy Calculus to Smart Vehicles. Poster presented at the Transportation Planning Exchange Forum, Ponte Vedra, FL.

**Posadas, B.** (2015) Dimensionality Reduction Methods to Detect Marssonina Blotch Disease in Fuji Apple Leaves. Poster presentation at Graduate Research Day at University of Florida, Gainesville, FL.

**Posadas, B.** (2015) Machine Learning Algorithm for Detection of Marssonina Blotch Disease in Fuji Apple Leaves. Poster presentation at Agricultural and Biological Engineering Department Research Day at University of Florida, Gainesville, FL.

### Oral Presentations

**Posadas, B.,** (2021) Design and Evaluation of Crowdsourcing Agriculture Mobile Application for Lambsquarters, Mission LQ. Society for the Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS) National Diversity in STEM Conference, October 21-29, 2021.

Brinkely, J., **Posadas, B.,** Woodward, J., Daily, S., and Gilbert, J. (2018) Developing Personas with Disabilities to Aide in the Design of Accessible Automotive Systems. In 9th International Conference on Applied Human Factors and Ergonomics, Orlando, FL, USA, July 22 – 26, 2018.

**Posadas, B.,** (2018) Issues of Big Data in Agriculture. CSCW 2018 Workshop on Rural Computing: Beyond Access & Infrastructure, Jersey City, NJ, November 4, 2018

Gilbert, J., Eugene, W., Jones, J., Mack, N., Crawford, C., Thomas, S., **Posadas, B.** (2016) Designing for Inclusive Voting Technologies. Paper presented at the 7th International Conference on Applied Human Factors and Ergonomics, Orlando, FL, July 27-31, 2016.

**Posadas, B.** (2015) The Development of a binary classifier for the early detection of Marssonina Blotch Disease. Paper presentation at the meeting of the Society of Hispanic Professional Engineers (SHPE), Baltimore, MD, November 10-15, 2015. **Best Paper Award**

### Workshops Led

Hispanics in Computing Birds of a Feather, ACM Special Interest Group on Computer Science Education (SIGCSE): Technical Symposium on Computer Science Education, Toronto, Ontario, CA, March 15-18, 2023.  
*Accepted*

Undergraduate Consortium, AAAI Conference on Artificial Intelligence, Washington D.C., February 7-14, 2023.

Hispanics in Computing Birds of a Feather, Association for Computing Machinery's Richard Tapia Celebration of Diversity in Computing, Washington, D.C., September 7-10, 2022.

Hispanics in Computing Birds of a Feather, Association for Computing Machinery's Richard Tapia Celebration of Diversity in Computing, virtual, September 14-18, 2021.

Hispanics in Computing Birds of a Feather, Association for Computing Machinery's Richard Tapia Celebration of Diversity in Computing, virtual, September 16-19, 2020.

Hispanics in Computing Birds of a Feather, Association for Computing Machinery's Richard Tapia Celebration of Diversity in Computing, San Diego, CA, September 18-21, 2019.

### Invited Talks

Building LatinX Community in Academia, Graduate School at Virginia Tech, Blacksburg, VA, October 5, 2022.

My STEM Journey, Women's Inclusion in Science, Technology, Engineering & Mathematics Program, Harvey Mudd College, virtual, August 27, 2022.

Using Agriculture to Introduce Programming and Data Science to Students, Center for Food Systems and Community Transformation, Virginia Tech, virtual, August 24, 2022.

Farm data: Challenges in Trust, Ownership and Dissemination, Social Informatics Research Group, Center for Human-Computer Interaction, Virginia Tech, virtual, March 4, 2022.

HCI In Agriculture, Design. Use. Build. (DUB) - University of Washington, virtual, March 2, 2022.

Big Data in Agriculture: Applications and Policy, Rural Computing Research Consortium, Michigan State University, virtual, January 14, 2022.

How Human-Computer Interaction is Changing Agricultural Technology, DePaul University - College of Computing and Digital Media (CDM) Research Colloquium, virtual, Apr 23, 2021.

Current State of Regulations of Big Data in Agriculture, Helping Agriculture Remain Vital through Engineering Science and Technology (HARVEST) Speaker Series, virtual, Nov 6, 2020.

Broadening Participation in Technology Policy, Association for Computing Machinery's Special Interests Group on Knowledge Discovery and Data Mining Conference, virtual, Aug 25, 2020.

### **EXTERNAL FUNDING**

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Ozzie, A. (PI), Archibald, T., Badgley, B., **Posadas, B.**, Steele, M. (2023-2026). National Science Foundation IRES. IRES Track 1: Soil Salination in Senegal: discovery, forecasting, and prevention. \$298,382. *Under Review*

Gardezi, M. (PD), **Posadas, B.** (2023-2026). United States Department of Agriculture. NIFA. Fostering Responsible Innovation and Governance of Big Data and Artificial Intelligence in Precision Agriculture. \$649,396. *Under Review*

White, R. (PD), Easton, Z., Ignosh, J., Bovay, J., Zhag, W., Niewolny, K., Bonnett, E., Xia, K., Duncan, S., **Posadas, B.** (senior personnel), Seyedhassani, H. (2023-2027). USDA NIFA AFRI. CAST: Climate-smart Agricultural Systems Testbed. \$3,999,981. *Under Review*

Chen, S. (PD), Faison, M., Holmes, C., Bz, I., Gupta, A., Benami, E., **Posadas, B.**, Holt, M., Alwang, J., Katz, A., Gohlke, J., Lambur, M. (2022-2027). NIFA Research and Extension Experiences for Undergraduates program. Internship in Data Analytics in Agriculture, Community, and Rural Economics (DATA-ACRE). \$748,412.

Maaz, G., **Posadas, B.** (senior personnel). (2022-2024). NSF. Testing a responsible innovation approach for integrating precision agriculture (PA) technologies with future farm workers and work - Supplement. \$499,995.

Chandel, A. (PI), **Posadas, B.**, White, R., Chappell, M., Parraga-Estrada, K. (2022-2023). University of Nebraska. Building synergistic data framework for cropping, livestock, and aquaculture producer network in Virginia. \$60,000.

Chandel, A. (PD), Chappell, M., Parraga-Estrada, K., **Posadas, B.**, White, R. (2022-2022). University of Nebraska USDA NIFA. ODF: National Agricultural Producers Data Cooperative: Building a Strategic Framework for Increasing Production and Driving Innovation. \$52,000.

Niewolny, K. (PD), Leonessa, A., Garland, M., **Posadas, B.** (2022-2023). USDA NIFA. AgrAbility Virginia Continuation Y4. \$184,774.

Niewolny, K. (PD), Robertson, T., Crutchfield, W., Leonessa, A., Srinivasan, D., **Posadas, B.**, Mason, G. (2019-2023). USDA NIFA AgrAbility Program. AgrAbility Virginia. \$719,749.

Niewolny, K. (PI), **Posadas, B.** (2020-2022). National Science Foundation & Computing Research Association. Computing Innovation Fellows 2020 Project. \$253,800.

**Posadas, B.** (PI). (2015). National Science Foundation. EAPSI: Multispectral Imaging for Marssonina Blotch Disease Detection in Fuji Apples. \$5,070.

## **INTERNAL FUNDING**

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Batarseh, F., Drape, T., **Posadas, B.** (02/21/2022-06/15/2022). CAIA/CCI SWVA Mini-Grants for Experiential Learning Development in Data Analytics and Cyberbiosecurity for Agriculture and Life Sciences competition. Cyberbiosecurity using Artificial Intelligence – A Regional Experiential Learning Program. \$4,000.

Walkup, K., Batarseh, F., Bainya, S., **Posadas, B.**, Perez-Torres, C. (10/01/2022-04/30/2023) The Center for Excellence in Teaching and Learning & the Office of the Executive Vice President and Provost. Faculty Teaching Group Grant. \$2,000.

Williams, M., Haugen, I., **Posadas, B.**, Friedel, C. (06/01/2022-05/31/2023). University Libraries Collaborative Research Grant. The good, the bad, and the ain't so pretty, Discovering the thoughts, and experiences of farmers during the late 20th and early 21st centuries. \$5,000.

Alwang, J., **Posadas, B.** (01/01/2022-08/31/2022). Policy Destination Area +Policy Research Supplement Fellowship. Remotely sensed data, climate change and poverty: A Zimbabwean study. \$10,500.

Chen, S., Archibald, T., Benami, E., Gupta, A., Haskins, C., Holmes, C., Holt, M., Lambur, M., **Posadas, B.**, Rutherford, T. (03/01/2021-06/30/2022). College of Agriculture and Life Sciences, Virginia Tech. VT Data Science for the Public Good: A CALS-VCE Collaboration. \$60,000.

Niewolny, K., Strawn, L., Benami, E., Morota, G., Duncan, S., Rutherford, T., **Posadas, B.** (08/01/2021-05/31/2022). College of Agriculture and Life Sciences Innovative and Transformative Graduate and Undergraduate Education Initiative. Smart Farm Seminar. \$2,258.

Ramsey, F., Duncan, S., Murch, R., Seyyedhasani, H., Sforza, P., **Posadas, B.**, Chantem, T., Gerdes, R. (2021). Virginia Tech Center for Advanced Innovation in Agriculture DSFAS Incentive Funding. Team Development for Cyberbiosecurity Guidelines for Smart Farms. \$1,000.

## **FELLOWSHIPS, HONORS AND AWARDS**

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Leadership & Service Award for 2023 YMCA at VT International Women's Day	2023
CRA Computing Innovation Postdoctoral Fellow	2020-2022
Edward Alexander Bouchet Graduate Honor Society	2019
Media Democracy Fund PhDx Fellow	2017 & 2018
Computers and Electronics in Agriculture Outstanding Contribution in Reviewing	2017
Outstanding Cultural Organization, UF	2017
Florida Education Fund McKnight Doctoral Fellow	2016 – 2021

University of Florida Graduate School Fellow	2016 – 2020
University of Florida Board of Education Fellow	2016
Gamma Sigma Delta Agriculture Honor Society	2016
J. Michael Rollo Diversity Impact Award, UF	2016
Outstanding Gator Engineer M.S. Scholar, UF	2016
NSF East Asia and Pacific Summer Institute (EAPSI) Fellow	2015
Alpha Epsilon Agricultural, Biological & Food Engineering Honor Society	2015
Alpha Epsilon Lambda National Graduate Students Honor Society	2015
Tau Beta Pi National Engineering Honor Society	2015
Society of Hispanic Professional Engineers RISE Symposia Best Paper Award	2015

## **TEACHING**

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### Program/Curriculum Developed

Data Science for the Public Good Summer Scholars Program, Department of Agricultural and Applied Economics, Virginia Tech, summer research experience for undergraduates, Summer 2021, 2022, 2023

ALS 5814: Smart Farms: Topics in Agricultural Leadership & Community Education, Department of Agricultural Leadership and Community Education, Virginia Tech, graduate seminar course, Spring 2022

ALS 5334: Professional Communication in Ag & Life Sciences, Department of Agricultural Leadership and Community Education, Virginia Tech, graduate course, Spring 2021

### Instructor

ESOL level 2B, Washington English Center, Washington D.C., adult education, Spring 2020

CodeIT Day, Department of Computer and Information Science and Engineering, University of Florida, middle school outreach, October 2015

### Teaching Assistant

ABE 4043C: Senior Design, Department of Agricultural and Biological Engineering, University of Florida, graduate teaching assistant, Fall 2015

## **SERVICE**

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### Journal and Conference Papers Reviewing

10/2016-present

- Association for Computing Machinery's Special Interest Group on Computer-Human Interaction Conference
- Association for Computing Machinery's Richard Tapia Celebration of Diversity in Computing Conference
- MDPI Sustainability Journal
- Society for the Advancement of Chicanos and Native Americans in Science Conference
- Advancing Diversity, Inclusion, and Social Justice through Human Systems Engineering
- Ingeniería e Investigación Journal, Ciudad Universitaria, Bogotá, Colombia
- Human Factors and Ergonomics Society Annual Meeting
- Interaction Design and Children Conference
- Computers and Electronics in Agriculture
- American Society for Engineering Education
- Grace Hopper Celebration of Women in Computing

### Award and Honors Reviewing

01/2022-present

- NCWIT Aspirations in Computing (AiC) Collegiate Award
- NCWIT Aspirations in Computing (AiC) high school Award
- Virginia Tech's Bouchet Society

#### Other Conference Service

- Mentoring Chair, Undergraduate Consortium, AAAI Conference on Artificial Intelligence, Washington D.C., February 7-14, 2023

#### University Service

- Diversity Committee, School of Plant and Environmental Sciences, Virginia Tech, 01/2022-present
- Advisory Board Member, Virginia AgrAbility, Virginia Tech, 01/2022-present
- Committee Member, Diversity and Inclusion Student Group, University of Florida, 07/2016-05/2018
- Graduate Student Recruiter, Herbert Wertheim College of Engineering, University of Florida, 09/2015-05/2018
- Co-founder, Latino-Hispanic Organization of Graduate Students, University of Florida, 08/2014-05/2018
- Committee Member, Engineering Student Leadership Advisory Board, University of Florida, 09/2016-05/2017
- Graduate Ambassador, Society of Hispanic Professional Engineers, University of Florida, 01/2015-01/2016

### **EXTENSION AND OUTREACH**

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#### Extension – Mobile Applications

- Mission LQ, Android/iPhone application for uploading data on lambsquarters, 2019

#### Outreach

- Mentor, VineCorps, Cheverly, MD, 12/2019-12/2022
- McNair Peer Advisor, McNair Scholars Program, University of Florida, 09/2016-05/2018

### **ADVISED STUDENTS**

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#### Current PhD Students Advised as Major Professor

Shikhar Poudel, PhD Student, School of Plant and Environmental Sciences, VT  
Translational Plant Sciences Center – first year PhD program  
Tentative Graduation Date: Spring 2027

Fatemeh Esmaeilbeiki, PhD Student, School of Plant and Environmental Sciences, VT  
Tentative Graduation Date: Spring 2027

#### Current Committee Member for PhD Dissertation

Shreya Mitra, PhD Student, Department of Agricultural Leadership and Community Education, VT  
Advisor: Tom Archibald

David Smilnak, PhD Student, Department of Agricultural Leadership and Community Education, VT  
Advisor: Kim Niewolny

Anuradha Sen, PhD Student, Department of Agricultural Leadership and Community Education, VT  
Advisor: Tom Archibald

#### Current PhD Students Supervised as Lab Director

Shreya Mitra, PhD Student, Department of Agricultural Leadership and Community Education, VT

#### Current MS Students Supervised as Lab Director

Mehul Bhanushali, MS Student, Department of Computer Science, VT

#### Past PhD Students Supervised as Lab Director

Esha Dwibedi, Economics, VT  
Leonard-Allen Quaye, Agricultural and Applied Economics, VT  
Poonam Tajanpure, Biological Systems Engineering, VT



Past MS Students Supervised as Lab Director

Kuo-Hao Lai, MS Student, Department of Computer Science, VT  
Pei Cheng Huang, MS Student, Department of Computer Science, VT  
Ashwin Rachha, MS Student, Department of Computer Science, VT  
Avi Seth, Department of Computer Science, VT

Past Summer Undergraduate Students Supervised as Lab Director

Catherine Back, Data Science, University of California, San Diego  
Ruoyu Fan, Applied Mathematics-Economics, Brown University  
Ari Liverpool, Applied Economic Management, Virginia Tech  
Josue Navarrete, General Studies, MiraCosta College  
Julie Rebstock, Economics and Computational Modeling and Data Analytics, Virginia Tech  
Ryan Jacobs, Environmental Economics, Management, and Policy, Virginia Tech  
John Wright, Statistical and Data Science, Virginia State University  
Atticus Rex, Mechanical Engineering & Computational Modeling and Data Analytics, Virginia Tech  
Victor Mukora, Computational Modeling and Data Analytics, Virginia Tech

**PROFESSIONAL AFFILIATIONS AND MEMBERSHIPS**

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- Translational Plant Sciences Center (TPSC), Virginia Tech
- Affiliated Faculty, Department of Agricultural Leadership and Community Education, Virginia Tech
- Center of Human-Computer Interaction (CHCI), Virginia Tech
- Center for Advanced Innovation in Agriculture (CAIA), Virginia Tech
- Center for Food Systems and Community Transformation, Virginia Tech
- Helping Agriculture Remain Vital through Engineering Science and Technology (HARVEST)
- American Association for the Advancement of Science (AAAS)
- Association for Computing Machinery (ACM)
- Human Factors and Ergonomics Society (HFES)
- Institute of Electrical and Electronics Engineers (IEEE)
- Society of Hispanic Professional Engineers (SHPE)
- Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)

**SKILLS**

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- GIS: ENVI, ArcMap, MATLAB including Image Processing Toolbox and Simulink
- Statistical Analysis Software: VBA and Microsoft Office, R, SPSS
- Coding: Python, JavaScript, Java, Jupyter, GitHub
- Mobile application development using Kinvey Studio
- User Design: interviews, focus groups, surveys, usability testing, personas and scenarios, storyboarding, wireframes (Balsmiq & Invision), low and high-fidelity prototyping, AutoCad, MAXQDA
- Languages: English (native language), Spanish (conversational)