

# Jake Gonzalez

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 Jake Gonzalez  
 JakeTTU



## Employment History

- 2022 – ....  **Data Engineer**, AVX Aircraft Company.  
Benbrook, Texas
- 2020 – ....  **Research Assistant**, Computer Science Department, Texas Tech University.  
Lubbock, Texas

## Education

- 2020 – ....  **Ph.D. Computer Science**, Texas Tech University  
Lubbock, Texas
- 2018 – 2020  **M.Sc. Computer Science**, Texas Tech University  
Lubbock, Texas
- 2013 – 2017  **B.Sc. Corporate Communication**, West Texas A&M University  
Canyon, Texas

## Research Experience

- Summer 2023  **Fellow**, X-Force  
Pentagon & National Security Innovation Network
- Summer 2023 – ....  **Researcher**, Numeric Modeling Phase II  
United States Intelligence Community
- Fall 2022 – ....  **Researcher**, DRRAS Phase II  
United States Army & AVX Aircraft Company
- Fall 2022  **Researcher**, Numeric Modeling Phase I  
United States Intelligence Community
- Spring 2022 – Fall 2022  **Researcher**, FLEETSPACE Phase I  
United States Army & AVX Aircraft Company
- Fall 2021 – Spring 2023  **Fellow**  
NXP Foundation
- Fall 2021 – Spring 2022  **Researcher**, CEEQ Phase I  
Department of Energy & CyManII
- Fall 2020 – Spring 2021  **Researcher**, DRRAS Phase I  
United States Army & AVX Aircraft Company

## Research Publications

### Journal Articles

- 1 **J. Gonzalez**, E. Bediako, and T. Dang, "Energy optimization of a fluid catalytic cracking unit via temperature management," *Journal of Energy Resources Technology*, 2023, In Progress.
- 2 **J. Gonzalez**, E. Bediako, and T. Dang, "Simulation based heat exchanger optimization in fluid catalytic cracking system," *Clean Technologies*, 2023, In Progress.

- 3 **J. Gonzalez**, M. Siebecker, V. Pham, C. Jordan, D. C. Weindorf, and T. Dang, "Comparative analysis and visualization of soil profiles at the meter spatial scale utilizing novel matrix and volume rendering techniques," *Computers and Electronics in Agriculture*, vol. 215, p. 108377, 2023. DOI: <https://doi.org/10.1016/j.compag.2023.108377>.

## Conference Proceedings

- 1 **J. Gonzalez** and T. Dang, "Genenet: Temporal graph data visualization for gene nomenclature and relationships," in *International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (IVAPP)*, Submitted, 2023.
- 2 **J. Gonzalez** and T. Dang, "Outviz: Visualizing the outliers of multivariate time series," in *The 12th International Conference on Advances in Information Technology*, ser. IAIT2021, Bangkok, Thailand: Association for Computing Machinery, 2021, ISBN: 9781450390125. DOI: 10.1145/3468784.3471606.
- 3 **J. Gonzalez**, C. Pham, A. Umejiaku, J. Benjamin, and T. Dang, "Skeletonvr: Educating human anatomy through an interactive puzzle assembly," in *The 12th International Conference on Advances in Information Technology*, ser. IAIT2021, Bangkok, Thailand: Association for Computing Machinery, 2021, ISBN: 9781450390125. DOI: 10.1145/3468784.3471605.

## Workshops

- 1 **J. Gonzalez**, N. V. T. Nguyen, and T. Dang, *Visfcac: An interactive family clinical attribute comparison*, 2022. DOI: <https://doi.org/10.48550/arXiv.2208.11688>. arXiv: 2208.11688 [cs.HC].
- 2 H. N. Nguyen, **J. Gonzalez**, J. Guo, N. V. T. Nguyen, and T. Dang, *Vismca: A visual analytics system for misclassification correction and analysis. vast challenge 2020, mini-challenge 2 award: Honorable mention for detailed analysis of patterns of misclassification*, 2021. DOI: <https://doi.org/10.48550/arXiv.2107.11181>. arXiv: 2107.11181 [cs.HC].

## Miscellaneous

### Awards and Achievements

- 2020  **Honorable Mention**, Detailed Analysis of Patterns of Misclassification.  
IEEE Conference on Visual Analytics Science and Technology

### Involvement

-  **Cardano After Dark**  
*Open-Source Software Contributor*
-  **Whitacre College of Engineering STEM CORE Outreach**, Texas Tech University  
*Graduate Associate & Lecturer*
-  **Computer Science Department Recruitment Campaign**, Texas Tech University  
*Software Maintainer & Recruiter*
-  **Phi Kappa Phi**, National Honors Society  
*Member*
-  **Gamma Beta Phi**, National Honors Society  
*Member*
-  **Lambda Pi Eta**, National Communication Honors Society  
*Member*
-  **Ronald McDonald House Charities**, Amarillo, Texas  
*Volunteer*

## Miscellaneous (continued)

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- **High Plains Food Bank**, Amarillo, Texas  
*Volunteer*
- **Habitat for Humanity**, Amarillo, Texas  
*Volunteer*

## References

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Available upon Request