Sample CV 1

*The following CV sample is **a research-oriented CV** commonly used to apply for dissertation/research fellowships, postdocs, or tenure-track faculty positions at R1 Research Institutions or research faculty positions (e.g., Research Assistant Professor).*

Jennifer Jacket

Atlanta, GA | jacketPhD@gatech.edu | 123-555-6678 | Goole Scholar (or Personal Website)

RESEARCH INTERESTS

- Machine Learning in Bioinformatics
- Multi-Omics Data Integration
- Computational Oncology
- Deep Learning in Cancer Research

EDUCATION

Georgia Institute of Technology   Atlanta, GA
Ph.D. in Bioinformatics (GPA: 3.91/4.00)   Expected 2025
- **Dissertation**: Development and Validation of a Machine Learning-Based Genome Prediction Model for Enhanced Cancer Prognostics and Personalized Treatment Strategies
- **PI**: Prof. Jacket Kim

University of South Florida   Tampa, FL
B.A. in Computer Engineering (GPA: 3.85/4.00)   May 2019

RESEARCH EXPERIENCE

Georgia Institute of Technology   Atlanta, GA
Graduate Researcher (PI: Dr. Jacket Kim)   September 2020 – Present
- Collaborate with PIs and 2 postdocs to manage multiple research projects funded by NSF (total $5.2 M).
- Design computational tools for analyzing large-scale genomic data, facilitating the identification of genetic markers and patterns associated with cancer progression.

Emory University   Atlanta, GA
Pre-Doctoral Research Fellow   June 2019– March 2020
- Designed a cell-based computational model using machine learning analyses to accurately measure tumor cell migration.

University of South Florida   Tampa, FL
Computational Biology Research Assistant (PI: Dr. Jacket Johnson)   September 2017 – May 2019
- Collaborated with a PI to develop algorithms to characterize genetic interactions in a combined dataset of 2,000+ tumors from 15 cancer types.

RESEARCH PROJECTS

Multi-Omics Integration for Enhanced Cancer Prognostics   June 2023 - Present
- Integrate genomic, transcriptomic, and proteomic data to create a comprehensive prognostic tool, improving the prediction of patient outcomes by 30% compared to single-omics approaches.

Predictive Modeling of Cancer Progression   January 2022 – May 2023
- Developed a machine learning model that achieved a 92% accuracy in predicting cancer progression stages using genomic data, outperforming existing prediction models.

Personalized Cancer Treatment with Deep Learning   June 2021 – July 2023
- Developed a deep learning framework that stratified patients into molecular subtypes, leading to more precise and personalized cancer treatment plans.

PUBLICATIONS

- **Jacket J**, Young, GA, and Kim J. (in-press). A comprehensive multi-omics approach to cancer prognostics. *PLOS Genetics*, 31(5): e101332.
- **Jacket J**, Zhu M, Huang P, Blease K, and Kim J. (2023). A novel machine learning approach for predicting cancer progression stages. *Journal of Computational Biology and Bioinformatics*, 19(3): 220-245.
- Johnson J., McKenney SE, and **Jacket J.** (2019). Enhancing personalized cancer treatment through deep learning stratification. *Cancer Informatics Journal, 21(1), 50-78.*
- **Jacket J** and Kim J. (under review). Harnessing genomic data for predictive oncology using machine learning. *Journal of Machine Learning in Biomedical Research*.

CONFERENCE PRESENTATIONS

- **Jacket J**, Gecz AT, Huang P., Liu K, and Kim J. Deep learning-based identification of genetic markers for tailored cancer therapy. American Association for Cancer Research (AACR) Annual Meeting, San Antonio, Texas, December 2023. (Oral)
- Kim J, Smith KA, **Jacket J**, and Lee K. Deep learning-driven molecular subtyping for optimized cancer treatment. American Institute for Cancer Research (AICR) Research Conference, Virtual May 2021. (Oral)
- Johnson J, McKenney SH, and **Jacket J**. Algorithm development for characterizing genetic interactions in a large-scale multi-cancer dataset. American Institute for Cancer Research (AICR) Research Conference, Chapel Hill, NC, May 2019. (Poster)

PATENTS

- U.S. Patent 2,345,678: " System and method for integrative multi-omics analysis in cancer prognostics" April 5, 2024
- U.S. Patent 8,765,432: " Computational tool for large-scale genomic data analysis in multi-cancer research," August 13, 2021

TEACHING EXPERIENCE

School of Biological Sciences, Georgia Institute of Technology   Atlanta, GA
Teaching Assistant, Experimental Design & Statistical Methods   Fall 2023, Spring 2024

- Led e-laboratory sessions to provide 25 undergraduate students with first-hand laboratory experiment experience associated with course concepts and methods.

Department of Biology, University of South Florida Tampa, FL
Curriculum Design Assistant September 2017 – May 2018
- Collaborated with faculty members to develop instructional resources and learning activities for newly designed online computational lab courses.

HONORS & AWARDS

- Doctoral Dissertation Fellowship, **Georgia Institute of Technology**, 2024
- Graduate Teaching Fellow Award, **Georgia Institute of Technology**, 2023
- National Science Foundation (NSF) Graduate Research Fellowship, **NSF**, 2010-2023
- Tech to Teaching Certificate, **Georgia Institute of Technology**, 2021
- Distinguished Academic Scholarship, **University of South Florida**, 2017–2019

SERVICE & COMMUNITY OUTREACH

Professional
JAMIA March 2024 - Present
Editorial Team Member & Ad Hoc Reviewer

University
Georgia Institute of Technology
*Graduate Student Leader, **Science Outreach Initiative*** May 2023 – May 2024
*Research Mentor, **Vertically Integrated Projects*** September 2022– May 2023
Vice President, **Graduate Student Government Association** June 2021 – May 2022

PROFESSIONAL MEMBERSHIPS

American Association for Cancer Research
American Informatics Medical Association
American Institute for Cancer Research

REFERENCES

Jacket Kim, Ph.D.
Associate Professor, College of Computing
Georgia Institute of Technology
Jacket.kim@gatech.edu

Jacket Golden, Ph.D.
Professor, School of Biological Sciences
Georgia Institute of Technology
Jacket.golden@gatech.edu

Jacket Li, Ph.D.
Assistant Professor, Chemical and Biomolecular Engineering, Georgia Institute of Technology
Assistant Professor, Emory School of Medicine
Jacket.li@gatech.edu

Jennifer Jacket

Atlanta, GA | jacketPhD@gatech.edu | 123-555-6678 | Goole Scholar (or Personal Website)

TEACHING INTERESTS

- Bioinformatics: Sequence and Structural Analysis
- Machine Learning Applications in Biomedical Research
- Experimental Design and Statistical Methods for Biology
- Data Science Techniques for Life Sciences
- Cancer Genomics and Personalized Medicine

EDUCATION

Georgia Institute of Technology   Atlanta, GA
Ph.D. in Bioinformatics (GPA: 3.91/4.00)   Expected 2025
- **Dissertation**: Development and Validation of a Machine Learning-Based Genome Prediction Model for Enhanced Cancer Prognostics and Personalized Treatment Strategies
- **PI**: Prof. Jacket Kim

University of South Florida   Tampa, FL
B.A. in Computer Engineering (GPA: 3.85/4.00)   May 2019

TEACHING & MENTORING EXPERIENCE

School of Biological Sciences, Georgia Institute of Technology   Atlanta, GA
Teaching Assistant, Experimental Design & Statistical Methods   Fall 2023, Spring 2024
- Created and led e-laboratory sessions to provide 25 undergraduate students with first-hand laboratory experiment experience associated with course concepts and methods.
- Developed and implemented written assessments and final projects to examine students' learning outcomes.

Georgia Tech Vertically Integrated Projects,   Atlanta, GA
Research Mentor   September 2022– May 2023
- Advised undergraduate and Master's students on interdisciplinary research projects associated with computational bioengineering and informatics.

Center for Teaching and Learning, Georgia Institute of Technology   Atlanta, GA
Tech to Teaching Certificate Program Trainee   January 2021 – December 2021
- Developed and applied learning and teaching technologies and principles to develop student-centered learning engagement and earned a certificate

Department of Biology, University of South Florida   Tampa, FL

Curriculum Design Assistant   September 2017 – May 2018
- Collaborated with faculty members to develop instructional resources and learning activities for newly designed online computational lab courses.

HONORS & AWARDS
- Doctoral Dissertation Fellowship, **Georgia Institute of Technology,** 2024
- Graduate Teaching Fellow Award, **Georgia Institute of Technology,** 2023
- National Science Foundation (NSF) Graduate Research Fellowship, **NSF**, 2010-2023
- Tech to Teaching Certificate, **Georgia Institute of Technology,** 2021
- Distinguished Academic Scholarship, **University of South Florida**, 2017–2019

RESEARCH EXPERIENCE
Georgia Institute of Technology   Atlanta, GA
Graduate Researcher (PI: Dr. Jacket Kim)   September 2020 – Present
- Collaborate with PIs and 2 postdocs to manage research projects funded by NSF
- Design computational tools for analyzing large-scale genomic data, facilitating the identification of genetic markers and patterns associated with cancer progression.

Emory University   Atlanta, GA
Pre-Doctoral Research Fellow   June 2019– March 2020
- Designed a cell-based computational model using machine learning analyses to accurately measure tumor cell migration.

University of South Florida   Tampa, FL
Computational Biology Research Assistant (PI: Dr. Jacket Johnson)   September 2017 – May 2019
- Collaborated with a PI to develop algorithms to characterize genetic interactions in a combined dataset of 2,000+ tumors from 15 cancer types.

RESEARCH PROJECTS
Multi-Omics Integration for Enhanced Cancer Prognostics   June 2023 - Present
- Integrate genomic, transcriptomic, and proteomic data to create a comprehensive prognostic tool, improving the prediction of patient outcomes by 30%.

Predictive Modeling of Cancer Progression   January 2022 – May 2023
- Developed a machine learning model that achieved a 92% accuracy in predicting cancer progression stages using genomic data, outperforming existing prediction models.

Personalized Cancer Treatment with Deep Learning   June 2021 – July 2023
- Developed a deep learning framework that stratified patients into molecular subtypes, leading to more precise and personalized cancer treatment plans.

PUBLICATIONS
- **Jacket J**, Young, GA, and Kim J. (In-press). A comprehensive multi-omics approach to cancer prognostics. *PLOS Genetics*, 31(5): e101332.
- **Jacket J**, Zhu M, Huang P, Blease K, and Kim J. (2023). A novel machine learning approach

for predicting cancer progression stages. *Journal of Computational Biology and Bioinformatics*, 19(3): 220-245.

- Johnson J., McKenney SE, and **Jacket J.** (2019). Enhancing personalized cancer treatment through deep learning stratification. *Cancer Informatics Journal, 21(1), 50-78.*

CONFERENCE PRESENTATIONS

- **Jacket J**, Gecz AT, Huang P., Liu K, and Kim J. Deep learning-based identification of genetic markers for tailored cancer therapy. American Association for Cancer Research (AACR) Annual Meeting, San Antonio, Texas, December 2023. (Oral)
- Kim J, Smith KA, **Jacket J**, and Lee K. Deep learning-driven molecular subtyping for optimized cancer treatment. American Institute for Cancer Research (AICR) Research Conference, Virtual May 2021. (Oral)
- Johnson J, McKenney SH, and **Jacket J**. Algorithm development for characterizing genetic interactions in a large-scale multi-cancer dataset. American Institute for Cancer Research (AICR) Research Conference, Chapel Hill, NC, May 2019. (Poster)

SERVICE & COMMUNITY OUTREACH

JAMIA *<div align="right">Virtual</div>*
Editorial Team Member <div align="right">March 2024 - Present</div>
- Act as an ad-hoc reviewer of submitted manuscripts focusing on computational cancer research.

Science Outreach Initiative, Georgia Institute of Technology <div align="right">Atlanta, GA</div>
Graduate Student Leader <div align="right">May 2023 – May 2024</div>
- Led a group of 15 graduate students to organize community science outreach programs to develop a deeper public understanding of science, especially for K-12 students.

Georgia Tech Graduate Student Government Association ` <div align="right">Atlanta, GA</div>
Vice President of Professional Development <div align="right">June 2021 – May 2022</div>
- Collaborated with campus partners and faculty to develop career and professional development opportunities and resources for graduate students during the COVID-19 pandemic.

PATENTS

- U.S. Patent 2,345,678: " System and method for integrative multi-omics analysis in cancer prognostics" April 5, 2024
- U.S. Patent 8,765,432: " Computational tool for large-scale genomic data analysis in multi-cancer research," August 13, 2021

PROFESSIONAL MEMBERSHIPS

American Association for Cancer Research

American Informatics Medical Association

American Institute for Cancer Research

REFERENCES

Jacket Kim, Ph.D.
Associate Professor, College of Computing
Georgia Institute of Technology
Jacket.kim@gatech.edu

Jacket Golden, Ph.D.
Professor, School of Biological Sciences
Georgia Institute of Technology
Jacket.golden@gatech.edu

Jacket Li, Ph.D.
Assistant Professor, Chemical and Biomolecular Engineering
Georgia Institute of Technology
Assistant Professor, Emory School of Medicine
Jacket.li@gatech.edu