Jesus Garcia Garcia

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EDUCATION

2019 – Present   **University of Minnesota**, Minneapolis MN, USA
MSc in Bioinformatics and Computational Biology, Advisor: Drs. Andrew Venteicher and Jinhua Wang
Capstone Project: Benchmarking Single-cell RNA-seq Copy Number Variation (CNV) Computational Biology Tools

2015 – 2018   **University of Minnesota**, Minneapolis MN, USA
BSc in Biology, Advisor: Drs. Shernan Holtan and Daniel Weisdorf
Independent Project: Low 5-year health care burden after umbilical cord blood transplantation

HONORS and AWARDS

2018   American Society of Hematology, Outstanding Abstract Achievement Award
2018   University of Minnesota, President's Student Leadership and Service Award
2013   Dr. Donald S. Cameron Scholarship
2013   Kopp Family Foundation Scholarship

PROFESSIONAL EXPERIENCE

02/2021 - Present   **Software Packaging Engineer**
University of Minnesota, Office of Information Technology, Minneapolis, MN, USA
- Hands-on development, standardization, and management of all software deployments/application packaging.
- Research and troubleshoot installation package defects and make necessary coding adjustments.
- Responsible for automating the installation and configuration of packaging Windows and Mac applications.

09/2019 - Present   **Graduate Researcher**
University of Minnesota, Bioinformatics and Computational Biology, Minneapolis, MN, USA
Advisor: Drs. Andrew Venteicher and Jinhua Wang
- Exercise high-performance computing (MSI) using LINUX heterogeneous clusters to examine genomics of brain tumors.
- Design, implement and test / debug computational tools to analyze genomic data.
- Modify existing tools to improve system performance and resource consumption.

08/2016 - 02/2021   **Desktop Support Technician**
University of Minnesota, Office of Information Technology, Minneapolis, MN, USA
- Provided front line IT support to thousands of users from several campuses via phone and walk-in locations.
- *Mac OS project team:* Configure, upgrade and maintain Mac OS X devices; Troubleshoot hardware and software related issues.
- My team serves as an escalation point for classroom management technology and video collaboration tools.

05/2017	**Research Assistant**
- 01/2021	**University of Minnesota, Hematology, Oncology and Transplantation**, Minneapolis, MN, USA

Advisor: Drs. Shernan Holtan and Daniel Weisdorf
- Used SQL to store, evaluate and classify statistical data and run various test cases.
- We are comparing health care burden for 100 days, 1 year and 5 years of Allogeneic HSCT: peripheral blood stem cell (PBSC), bone marrow (BM), umbilical cord blood (UCB).
- Enforced HIPPA compliance and guidance to ensure data integrity and protection.

08/2016	**Research Assistant**
- 07/2017	**University of Minnesota, Hematology, Oncology and Transplantation**, Minneapolis, MN, USA

Advisor: Dr. Naomi Fujioka
- Worked with principal investigator to develop, implement patient recruitment strategies, organize and maintain study database.
- Prepared source documentation and necessary specimen tubes for clinic visits.

08/2017	**Undergraduate Student**
- 01/2018	**University of Minnesota, College of Biological Sciences**, Minneapolis, MN, USA

Mentor / Class. Professor: Dr. Melissa Gardner
- Developed a MATLAB program to measure differences in cell morphology using immuno-stained images.
- This tool main function can precisely differentiate wild-type versus mutant in a mechanism of LPL-1 during mitosis.

08/2013	**Desktop Support Technician Lead**
- 12/2015	**Minnesota State University, Moorhead, Office of Information Technology,** Moorhead, MN, USA

- Performed various special projects - documentation, training of peers to maintain skills levels relative to current and emerging technologies.
- Delivered orientations to new MSUM students and staff.

08/2013	**Research Assistant**
- 12/2015	**Minnesota State University, Moorhead, Psychology,** Moorhead, MN, USA

Advisor: Drs. Magdalene Chalikia and Elizabeth Nawrot
- Investigated the productivity rate of using Google glass in a classroom setting by considering its multitasking functionalities.
- Performed statistical test such as paired t-test and ANOVA testing to measure the productivity rate.

PUBLICATIONS

Jesus Garcia Garcia, Sonya Grillo, Qing Cao, Claudio G. Brunstein, Mukta Arora, Margaret L. MacMillan, John E. Wagner, Daniel J. Weisdorf, Shernan G. Holtan; Low 5-year health care burden after umbilical cord blood transplantation. **Blood Adv 2021**; 5 (3): 853–860. doi: https://doi.org/10.1182/bloodadvances.2020003369

Jesus Garcia Garcia, Sonya Grillo, Qing Cao, Claudio G Brunstein, Mukta Arora, Margaret L. MacMillan, John E. Wagner, Daniel J. Weisdorf, Shernan G. Holtan; 5 Year Health Care Burden after Allogeneic Hematopoietic Stem Cell Transplantation (HSCT): Impact of Graft Source. **Blood 2018**; 132 (Supplement 1): 367.
doi: https://doi.org/10.1182/blood-2018-99-113201

PRESENTATIONS

<u>Research Conferences</u>

2018   **Oral Presentation & Poster: "**5 Year Health Care Burden after Allogeneic Hematopoietic Stem Cell Transplantation (HSCT): Impact of Graft Source". 60th ASH Annual Meeting & Exposition, San Diego, CA, USA

2017   **Poster:** "The Effects of Increased Temperature on the Eye Development of Zebrafish Exposed to Ultraviolet Light". Undergraduate Research Symposium, Minneapolis, MN, USA

2015   **Poster: "**Observations and Practical Applications of Google Glass in a College Setting". Student Academic Conference, Moorhead, MN, USA

<u>Talks & Other</u>

2021   **Oral Presentation: "**CCR @ AIR Pod Guest Speaker Jesus Garcia Garcia". Richfield Senior High School, Richfield, MN, USA

2018   **Oral Presentation:** "Decision for Success: The Impact of My Choices". Richfield Senior High School, Richfield, MN, USA

2017   **Oral Presentation: "**Minnesota Dream Act: Story of Jesus Garcia Garcia". Minnesota Office of Higher Education, Minneapolis, MN, USA

SKILLS

Data Analysis: DNA Methylation, RNA seq, single-cell RNA seq, single-cell ATAC seq, ChIP seq
Programming: R, Python, SQL, Shell scripting, Perl scripting, HPC job
Cloud Tools: Terra, 10x Cloud Analysis, Cloud Life Sciences
Software: Jupyter Notebook, IGV, Loupe Browser, GitHub