302 S. 2nd St,
Apt 801
Champaign, IL 61820
1 (510) 566 9569
eg11@illinois.edu
Home Page
LinkedIn

Emmanuel Gallegos

Student, Research Assistant, Software Engineer

Education

May, 2023 **M.S. Computer Science (3.94)**, *University of Illinois at Urbana-Champaign*, Champaign, IL.

Dec, 2020 **B.S. Computer Science (4.0)**, *California State University - East Bay*, Hayward, CA.

May, 2019 **A.S. Mathematics, A.S. Computer Science (3.64)**, *Chabot College*, Hayward, CA.

Honors and Awards

2022 **Siebel Scholar** Prestigious scholarship awarded to graduate students from top programs demonstrating outstanding leadership and academic excellence

2021-2022 **UIUC Graduate College Fellow,** Fully-funded Graduate College Master's Fellowship Appointment at UIUC to do research on motion planning and robotics in the first year of my Master's program.

2019-2020 **Dean's List,** Member of Dean's List at CSU East Bay (3/3 semesters)

2017-2019 **Academic Honors List,** Member of Academic Honors List at Chabot College (3/4 semesters)

Experience

8/21–Present **Research Assistant**, *Parasol Lab*, Champaign, IL, Research assistant under Dr. Nancy Amato, studying distributed computing for task and motion planning. Primary research lies in the implementation of parallel planning algorithms in environments with highly varied and distributed resources, utilizing cloud and edge computing.

6/20 – 8/21 **Lead Software Engineer**, *T'ena Health Technologies*, San Francisco (Remote), Android developer and lead software engineer for the T'ena System, a telerehabilitation service that integrates a proprietary smart-wearable in order to allow stroke rehabilitation patients to connect with their clinicians remotely.

5/20 – 1/21 **Research Assistant**, *iLab*, Hayward (Remote), Sponsored by NSF & CAHSI Virtual REU. Research assistant led by Dr. Lynne Grewe to help the public increase situation awareness with respect to Covid-19. Developed a module that used thermal imaging and modern computer vision techniques to identify individuals with a high risk of fever from a mobile platform. Led the deployment of this system on the CovidID Android application. This research led to two publications in the 2021 SPIE Defense and Commercial Sensing Conference, and a presentation in the 2020 Great Minds in Stem Conference.

10/19 – 2/20 **Coding Instructor**, *KidzToPros*, Hayward + Castro Valley, Worked as a coding instructor teaching game development to children in after school programs across the east SF Bay Area.

8/17 – 2/20 **Peer Tutor**, *Private Practice*, Chabot College + CSU East Bay, Offered private tutoring to classmates for classes such as Algorithms, Data Structures, Discrete Mathematics, Statistics, and Automata.

Skills

Programming Python, Java, C++, JavaScript, Android, Bash, HTML/CSS

Tools Google Firebase, Docker, TensorFlow, OpenMP, MPI, LaTex, Excel

Languages English—Advanced, Spanish—Intermediate

Personal Creative Writing (Sci-Fi/Fantasy), Public Speaking, Saxophone, Clarinet, and Piano

Publications and Research

[Gal+20] Emmanuel Gallegos, Lynne Grewe, Shivali Choudhary, Dikshant Jain, and Phillip Aguilera. "Mobile Head Detection with Thermal Imaging for Skin Temperature Analysis". In: *Great Minds in Stem Conference*. **Poster**, 2020. URL: https://posters.gmis-scholars.org/vf/303.

[Gre+21a] Lynne Grewe, Subhangi Asati, Shivali Choudhary, Emmanuel Gallegos, Divya Gupta, Maithri House, Cemil Kes, Jamie Ngyuen, Bhumit Patel, Kunjkumar Patel, Dikshant Pravin Jain, Jake Shahshahani, Phillip Aguilera, Allen Shahshahani, Manasi Rajiv Weginwar, and Chengzhi Hu. "Health crisis situation awareness using mobile multiple modalities". In: *Signal Processing, Sensor/Information Fusion, and Target Recognition XXX*. Ed. by Ivan Kadar, Erik P. Blasch, and Lynne L. Grewe. Vol. 11756. International Society for Optics and Photonics. SPIE, 2021, pp. 276–286. DOI: 10.1117/12.2587544. URL: https://doi.org/10.1117/12.2587544.

[Gre+21b] Lynne Grewe, Shivali Choudhary, Emmanuel Gallegos, Dikshant Pravin Jain, and Phillip Aguilera. "Low-resolution infrared temperature analysis for disease situation awareness via machine learning on a mobile platform". In: *Signal Processing, Sensor/Information Fusion, and Target Recognition XXX*. Ed. by Ivan Kadar, Erik P. Blasch, and Lynne L. Grewe. Vol. 11756. International Society for Optics and Photonics. SPIE, 2021, pp. 287–299. DOI: 10.1117/12.2587547. URL: https://doi.org/10.1117/12.2587547.