

Andrea Figueroa

Human Centered Design & Engineering PhD Student

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Skills

Coding C/C++, Python, Ruby, Bash, SQL, PHP, R.

IT Operations GNU/Linux, Nginx, MariaDB, PostgreSQL.

Design LaTeX, Adobe Photoshop, Gimp, Tableau.

Software Development Ruby On Rails, CSS, HTML5, JQuery, Git.

Work Experience

Sep 2019- current **Research Assistant**, *HCDE*, Human-Centered Data Science Lab, University of Washington.

Advisor: Cecilia Aragon

Mar 2018 to Aug 2018 **Freelance Software Developer**, *Math Department at UTFSM*, Valparaíso, Chile.
Development of teaching assistant applications system

Apr 2017 to Jan 2018 **Freelance Software Developer**, *National Congress of Chile*, Valparaíso, Chile.
Development of software to verify interest and patrimony declarations of members of the Congress

Jan to Mar 2014 **Internship**, *Latam Airlines Group*, Santiago, Chile.
Development of diffusion platform with indicators of performance of workers

Education

2019-current **University of Washington**, Seattle, Washington,
PhD. in Human Centered Design and Engineering.

2016-2018 **Universidad Técnica Federico Santa María**, Valparaíso, Chile,
Msc. in Computer Engineering.
Thesis: An adaptive Simulated Annealing for Large-Scale Robot Motion Planning

2010-2016 **Universidad Técnica Federico Santa María**, Valparaíso, Chile,
Bsc. in Informatics Engineering.

Languages

Spanish **Native**

English **Fluent**

TOEFL: 109

Teaching

Instructor

2018-2019 **Computer Programming**, UTFSM.

2018 **Data Visualization**, 2nd Semester, UTFSM.

Teaching Assistant

- 2019 **Information Visualization**, Winter, UW.
Prof: Cecilia Aragon
- 2018 **Data Visualization**, 1 semester, UTFSM.
Prof: Cecilia Aragon
- 2016-2017 **Artificial Intelligence**, 4 semesters, UTFSM.
Prof: María Cristina Riff
- 2012-2016 **Databases**, 8 semesters, UTFSM.
Prof: Cecilia Reyes

Research

- Jun 2018-ongoing **Text-prizm**, Advisor: Cecilia Aragon.
Qualitative coding is a labor-intensive process of manually reading and interpreting large amounts of data, most qualitative coding tools are not adapted to large online communication datasets. Text-prizm is a web application for collaborative coding of large volumes of short text messages, its interface is built using a human-centered approach and aims to facilitate the qualitative coding and analysis of large online communication datasets.
- Sept 2018-ongoing **Cultural Differences in Data Privacy Perspectives on Social Media**,
Advisors: Cecilia Aragon, Claudia López.
The Cambridge Analytica scandal has triggered a discussion about data privacy in social media. Motivated by this context, we aim to answer this research question: Does the public online debate reveal different perspectives on data privacy across countries/cultures? A large-scale Twitter dataset around this issue with both English and Spanish tweets has been collected and we aim to analyze the data through both qualitative coding and automated analysis.
- Oct 2017 to Nov 2018 **An Adaptive Simulated Annealing for Large-Scale Robot Motion Planning**,
Advisor: María-Cristina Riff.
In this work a Simulated Annealing approach with adaptive mechanisms to find paths in large-scale scenarios of Robot Motion Planning is proposed, the main goal is to minimize the length of the path in different environments; completely known, semi-known or unknown. This approach can find short paths with low computational time in a variety of problems with different features and resolutions.

Publications

- 2019 **González, F., Figueroa, A., López, C., & Aragon, C.** , "*Information Privacy Opinions on Twitter: A Cross-Language Study*", In Conference Companion Publication of the 2019 on Computer Supported Cooperative Work and Social Computing (pp. 190-194). ACM..
- 2019 **F González, Y Yu, A Figueroa, C López, C Aragon**, "*Global Reactions to the Cambridge Analytica Scandal: A Cross-Language Social Media Study*", Companion Proceedings of The 2019 World Wide Web Conference.
- 2017 **Andrea Figueroa, Elizabeth Montero & María-Cristina Riff**, "*An effective Simulated Annealing for Robot Motion Planning*", 29th IEEE International Conference on Tools with Artificial Intelligence (ICTAI).