

Allison Austin

<https://allieaus.github.io/>

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Education	California State University, Long Beach <i>Bachelor of Science, Computer Science</i> GPA: 3.93	2019 - 2023
Publications	B. Fu, A. Austin , and M. Garcia. <i>Visualizing Mappings Between Pairwise Ontologies - An Empirical Study of Matrix and Linked Indented List in Their User Support During Class Mapping Evaluation</i> . In Proceedings of the 22nd International Semantic Web Conference (ISWC 2023), LCNS, Springer, 2023	
Research Experience	Graduate Student Researcher <i>UC Davis Visualization and Interface Design Lab</i> <ul style="list-style-type: none">• Researched methods for anomaly detection in HPC system data for monitoring and root cause analysis of hardware failure.• Experimented with different streaming visualization designs for displaying variation in sensor readings using different functional data analysis techniques.• Developed a visual analytics framework for online, interactive analysis of Ganglia logs collected from HEP experiments.	Oct 2023 - Present
	Research Assistant <i>CSULB Data Semantics and Human-Data Interaction Lab</i> <ul style="list-style-type: none">• Conducted user study of the matrix and the linked indented list visualizations in their visual support for users during human evaluation of class mappings established between pairwise ontologies.• Designed and executed task-based experiments with 81 participants while obtaining data from Gazepoint eye tracker.• Evaluated the extent to which a given visualization supports recognition of visual cues, validation of existing mappings, and creation of new results using eye tracking data, task success, and task completion time.	Aug 2022 - May 2023
Grad Course Projects	ECS 289L Advanced Deep Learning with Dr. Hamed Pirsiavash <ul style="list-style-type: none">• Collaborated with another graduate student to research LLMs for anomalous log sequence prediction in HPC data. We experimented with additive attention mechanism and hierarchical attention network on GPT and BERT models. For our prediction task, the BERT model outperformed the GPT model for both datasets.• We found that using different attention mechanisms resulted in improved accuracy and f-1 scores for BERT trained on sparse time series data and no improvement for BERT trained on high-frequency time series data.	Fall 2023
Industry Experience	Data Engineer Intern <i>Nihon Kohden Digital Health Solutions</i> <ul style="list-style-type: none">• Researched methods for fitting time-series data and classification of alarm thresholds for reducing alarm fatigue. Currently awaiting patent approval for alarm data storage engine and simulation algorithm.• Improved usability and performance of real-time and historical medical data visualization applications based on feedback from health care professionals.	May 2021 - Aug 2023
	Data Engineer Intern <i>Amazon</i> <ul style="list-style-type: none">• Migrated large-scale ETL pipeline to Native AWS for real-time workforce management and analytics software. Reduced latency of agent statistics pipeline by	May 2022 - Aug 2022

optimizing pipeline architecture to improve performance, scalability, and resource usage.

- Expanded Selling Partner Support (SPS) Engineering cloud development kit (CDK) base code package to create AWS resources to carry out migration.

Awards	UC Davis Computer Science Department Fellowship	2023
	CSU's Program for Education and Research in Biotechnology (CSUPERB)	2022
Teaching Experience	ECS 170 Introduction to Artificial Intelligence, <i>Teaching Assistant</i>	Spring 2024
Community Involvement	Girls Who Code UC Davis, <i>Speaker</i>	May 2024
	2023 BEACH Women in Engineering Conference, <i>Volunteer</i>	April 2023
	COE/CNSM Transfer Student Panel, <i>Speaker</i>	March 2023
	CSULB Women in Computing (WiC) Sisterhood, <i>Mentor</i>	Aug 2022-May 2023
	2022 BEACH Women in Engineering Conference, <i>Volunteer</i>	April 2022
	Mathematics, Engineering, Science Achievement (MESA), <i>Volunteer</i>	March 2022
	Louis Stokes Alliance for Minority Participation (LSAMP), <i>Member</i>	2022-2023
	CSULB CS Undergraduate Student Advisory Board, <i>Volunteer</i>	Feb 2022
	CSULB Women in Computing (WiC), <i>Treasurer</i>	Aug 2021-May 2022
References	MarinaHacks, <i>Design Committee Volunteer, Sponsorship Committee Lead</i>	Jan 2021
	Dr. Kwan-Liu Ma	
	Distinguished Professor of Computer Science at UC Davis klma@ucdavis.edu	
	Dr. Bo Fu	
	Boeing Endowed Professor of Computer Science at CSULB	
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