

Luke Ponssen

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EDUCATION

B.S. Computer Science and Engineering

Sep 2022—Present

Santa Clara University Honors Program | Santa Clara, CA

GPA: 3.93

Relevant Coursework: Abstract Data Types & Structures, Logic Design, Embedded Systems, Object-Oriented Programming & Advanced Data Structures, Calculus/Analytic Geometry III-IV, Discrete Math, Differential Equations

PROFESSIONAL EXPERIENCE

Full-Stack Developer

Jul 2023—Present

AIMS Team, LLC | Fremont, CA

- 300+ hrs of experience engineering full-stack solutions for mobile/web apps for 20 water/wastewater districts
- Import 1,000,000+ assets and their features using SQL and create spatial relationships using ArcGIS Maps SDK
- Manipulate 2TB of data from clients in SQL and connect it to web applications using C#, JS, HTML, and ASP.NET
- Engineer 3 mobile apps for clients using ArcGIS Online and REST API Service to automate data updates/queries

RESEARCH EXPERIENCE

AR/VR Developer and Researcher

Jan 2023—Present

Human-Computer Interaction Lab at Santa Clara University | Santa Clara, CA

- Collaborate with Dr. Lukoff and senior design team to create a [digital twin](#) of university dorms in virtual reality
- Implement Matterport SDK with Javascript to make 10 3D virtual scans of dorms accessible to touring students
- Contribute original ideas and research in weekly 3 hour meetings and guide our work using Agile methodology
- Presented our VR project for 20 mins to Matterport Executive Board, establishing their relationship with SCU

Misinformation Research Assistant

Jun 2023—Oct 2023

Santa Clara University | Santa Clara, CA

- Scrape Twitter for 2000 tweets regarding controversial topics that potentially have misinformation or trolling
- Construct training datasets for ML models by labeling over 2000 tweets as misinformation, trolling, or both
- Collaborate/consult with Dr. Liu, Dr. Jazaieri, and 5 students in psychology, business, and computer science
- Present weekly project progression and new obstacles, update codebook with 20+ specific rules and examples

Machine Learning Researcher

May 2020—Nov 2021

Aspiring Scholars Directed Research Program | Fremont, CA

- Compiled, organized, and processed 531,468 county-level demographic, economic, and education data points
- Constructed SVM, Random Forest, Decision Tree models with libraries tensorflow, keras, sklearn, numpy
- Increased Multilayer Perceptron classifier accuracy 15% by effectively utilizing industry feedback from Dr. Mui
- Presented the implications of statistically outstanding bellwether attributes at Southern California Conference for Undergraduate Research (SCCUR) 2021 which hosted over 700 online participants
- [Publication](#): Ponssen, Luke, et al. "Using Classification Models to Analyze Bellwether Counties in U.S. Presidential Elections." *Seriatim Journal of American Politics*, vol. 3, no. 2, 2021, pp. 8-21.

PROJECTS

- [Website Portfolio](#): I learned through trial & error how to use HTML, React JS, and CSS to create pages, customize the UI/UX, automate typing animations, color titles with gradients, and use libraries to make it more interactive
- [Bronco Salt & Pepper Shakers](#): Designed hugging bronco salt & pepper shakers using SolidWorks CAD software and 3D printed 40 shakers in 250+ hours using Prusa and Ultimaker. Laser cut acrylic sliders for the bottoms.

SKILLS

- Coding Languages: Python (4yr), Java (2yr), SQL (1yr), HTML (1yr), CSS (1yr), C & C# (1yr), Javascript (<1yr)
- Spoken Languages: English (Native), Spanish (Advanced) | Spanish Immersion Program (K-8) and AP Spanish
- Skills: Git, Linux CLI, Intellectual Curiosity, Problem-Solving, Time Management, Strong Communication Skills

AWARDS AND DISTINCTIONS

- Santa Clara University 2023 Maker Product Design Challenge [2nd Place \(\\$1500\)](#)
- Aspiring Scholars Directed Research Program (ASDRP) Leadership Award, California State Seal of Biliteracy