

# Luke Ponssen

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## EDUCATION

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### 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

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### Full-Stack Developer

Jul 2023—Sep 2023

*AIMS Team, LLC | Fremont, CA*

- Spend 250+ hours engineering full-stack solutions and constructing software for 20 water/wastewater districts
- Import 1,000,000+ assets and their features using SQL and create spatial relationships using ArcGIS Maps SDK
- Implement 50+ application features using C#, JS, HTML, and ASP.NET to standardize code across all products
- Manipulate 200GB of data from clients in SQL and Microsoft Access Database to match current database format

## RESEARCH EXPERIENCE

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### Misinformation Research Assistant

Jun 2023—Present

*Santa Clara University | Santa Clara, CA*

- Scrape Twitter for 1200 tweets regarding controversial topics that potentially have misinformation or trolling
- Construct training datasets for ML models by labeling over 1200 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 10+ specific rules and examples

### HCI Lab Researcher

Jan 2023—Present

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

- Collaborate with 3 seniors and 1 professor to create a [digital twin](#) of university dorms using 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
- Research user experience by gathering data and feedback from students about how current tours can improve

### Machine Learning Researcher

May 2020—Nov 2021

*Aspiring Scholars Directed Research Program | Fremont, CA*

- Coordinated/facilitated team meetings with advisors and team, distributed responsibilities among 6 members
- Compiled, organized, and processed 531,468 county-level demographic, economic, and education data points
- Increased Multilayer Perceptron classifier accuracy 15% by effectively implementing industry feedback
- 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

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- [My Website](#): I created a website portfolio with no previous knowledge of website development; I learned through trial and error how to use HTML, Javascript, and CSS to create pages, customize the UI/UX, automate typing animations, color titles with gradients, and utilize external libraries to make the website interactive
- [Recreation of Mario](#): I created an animated character that navigates a complex 2-D map, collects coins, and performs super-jumps; I used Java and Processing to implement object collisions and platform detection

## SKILLS

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- Spoken Languages: English, native; Spanish, proficient | Spanish Immersion Program (K-8) and AP Spanish
- Coding Languages: Python (4yr), Java (2yr), HTML (1yr), CSS (1yr), Javascript (<1yr), C & C# (<1yr), SQL (<1yr)

## AWARDS AND DISTINCTIONS

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