# 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**

Iul 2023—Present

AIMS Team, LLC | Fremont, CA

- 200+ 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

#### **Misinformation Research Assistant**

Jun 2023—Present

Santa Clara University | Santa Clara, CA

- Scrape Twitter for 1500 tweets regarding controversial topics that potentially have misinformation or trolling
- Construct training datasets for ML models by labeling over 1500 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

# **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

# **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 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
- <u>Publication</u>: 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**

- <u>Website Portfolio</u>: 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
- <u>Bronco Salt & Pepper Shakers</u>: 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**

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

#### 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