Luke Ponssen

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EDUCATION

B.S. Computer Science and Engineering *Sep 2022—Present*
Santa Clara University | Santa Clara, CA
GPA: 3.93
Relevant Coursework: Abstract Data Types/Structures, Logic Design, Embedded Systems, Object-Oriented Programming and Advanced Data Structures, Calculus and Analytic Geometry III & IV, Discrete Math, Differential Equations

High School Diploma *Aug 2018—Jun 2022*
Washington High School | Fremont, CA
GPA: 3.93
Relevant Coursework: AP Computer Science A, AP Calculus BC, AP Statistics, AP Physics 1 and C, AP Microeconomics

PROFESSIONAL EXPERIENCE

Misinformation ML Researcher *Jun 2023—Present*
Santa Clara University | Santa Clara, CA
- Scrape Twitter for over 1200 tweets regarding controversial topics that potentially contain misinformation or trolling
- Construct training datasets for ML models by labeling over 1200 tweets as misinformation, trolling, both, or neither
- Consult/collaborate with Dr. Liu, Dr. Jazaieri, and 5 students majoring in psychology, business, and computer science
- Present project updates during weekly meetings and brainstorm new ideas for data collection and tweet encoding

Software Developer/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 augmented/virtual reality
- Implement Matterport SDK with Javascript to make 10 3D virtual scans of dorms accessible for prospective students
- Contribute original ideas and research in weekly 3 hour meetings and guide our work using Agile Scrum methodology
- Research user experience by gathering data and feedback from students about how current virtual tours can improve

Lead ML Researcher *May 2020—Nov 2021*
Aspiring Scholars Directed Research Program | Fremont, CA
- Coordinated and facilitated team meetings with advisors and team, distributed tasks/responsibilities among 6 members
- Compiled, organized, and processed 531,468 county-level demographic, economic, and education-related data points
- Increased Multilayer Perceptron classifier accuracy 15% by effectively implementing industry professional feedback
- Presented the implications of statistically outstanding bellwether attributes at Southern California Conference for Undergraduate Research (SCCUR) 2021 which hosted over 700 online participants

PUBLICATIONS

- 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. [[Link]](Link)

PROJECTS

- My Website (https://luke-ponssen.github.io/my-website): created website portfolio that showcased my knowledge of Javascript and CSS, part of my personality in the About Me section, and the projects I've worked on in the My Projects section; features include automated and typed statements, gradient coloring of titles, and spinning animations
- Platformer Video Game: created an animated character that navigates a complex 2-D map, avoids enemies, collects coins, and performs super-jumps; I used Java and Processing to implement object detection and platform collision

SKILLS

- Spoken Languages: English, native; Spanish, proficient | Spanish Immersion Program Graduate (K-8)
- Coding Languages: Java (2yr), Python (3yr), C (<1yr), Javascript (<1yr), HTML (1yr), CSS (1yr)

AWARDS AND DISTINCTIONS

- Santa Clara University 2023 Maker Product Design Challenge - 2nd Place ($1500) - Team Yellow Rose
- Aspiring Scholars Directed Research Program (ASDRP) Leadership Award, AP Scholar with Honor, AP Scholar with Distinction, Washington HS Wind Ensemble Musicality Award, Washington HS Wind Ensemble Trumpet Section Leader, Washington HS World Languages Departmental Honors, California State Seal of Biliteracy