Xinmiao (Austin) Yu

Email yuxm.austin2022@outlook.com | Linkedin Xinmiao Yu | Github austinyu |

EDUCATION

- **Grinnell College** — Grinnell, IA
  Bachelor of Arts, Physics and Computer Science; ***GPA: 3.92 (Major: 4.0)***   *Expected May 2023*
  - **Selected Coursework**: Data Structures, Algorithms Analysis, Operating System and Parallel Computing; Software Design and Development, Artificial Intelligence, Computation Theory, Functional Problem Solving, OOP, Human Computer Interaction.
  - **Honors and Awards**:
    * **Dean's List**: Spring 2020, Fall 2020, Spring 2021, Fall 2021
    * **Scholarships**: Tapia Scholarships (2020).

EXPERIENCE

- **Meta (Instagram Short Form Video Monetization Team)** — Menlo Park, CA
  Software Engineer Intern   *May 2022 - Aug. 2022*
  - Improved internal image to video transformation visual debugger as measured by saving engineer's time by 2 hours per week on client rendering tests by adding more aspect ratio preview dimensions using Hack (PHP), React, and GraphQL.
  - Wrote tech proposal and design docs involving XFNs from different countries to import new image to video transformation templates, which will potentially increase Reels conversion rate by 3.73%.
  - Enabled creating Reels ads from Facebook posts by creating ads validators and fixing rendering path for both preview and client sides, which would potentially increase approximately 8% of ads creation traffic on Reels.

- **Research Lab** — Grinnell, IA
  Research Assistant – Modeling Moral Reasoning | Advisor: Dr. Eliott   *June 2021 - Dec. 2021*
  - Based on literature reviews on multiple cognitive architectures (e.g. Soar, LIDA, Alec, etc.), designed equations to calculate emotional values used in the architecture.
  - Simulated cascading failure effects using evolutionary game theory on multiple network structures with 1000+ agents to show superiority of cooperative strategy over highly rewarding strategy using Python data analysis packages. Repository
  - Published as the first author. "EDA, An Empathy-Driven Computational Architecture", 9th Goal Reasoning Workshop at ACS, 2021.

- **Grinnell College Immersive Experience Lab** — Grinnell, IA
  Software Developer   *Aug. 2021 - Dec. 2021*
  - Built an interactive VR game that visualizes social, linguistic, and cultural roles that the longship played in the Viking Age by collaborating with a team of 10 software developers, designers and directors using Unity and XR Interaction Toolkit.

PROJECT

- **Interactive Greenhouse Gas Tracker** — Source Code
  Individual Contributor   *Aug. 2021 - Dec. 2021*
  - **Summary**: Developed a R Shinny Application that visualizes the evolution of greenhouse gas emission through a series of interactive maps and plots.
  - **Tech Stack**: Conducted data cleaning and manipulation using Tidyverse packages. Developed the R Shinny app using data visualization packages in R, including including ggplot2 and leaflet.

PROGRAMMING SKILLS

- **Languages**: Javascript, Hack(PHP), Python, GraphQL, R, C, Java, Racket, SQL, Unity, C#, Latex.

- **Frameworks**: React, Flow, Bootstrap, pandas, numpy, matplotlib, seaborn, ggplot2, leaflet, Tidyverse.