SARAH ASHLEY YU
Software Engineer

CONTACT

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PROJECTS

- dnaMe: Full-stack web application that analyzes users' DNA for markers of Alzheimer's disease, incorporating user authentication for data privacy.
- Alignment Chart: Full-stack authentication web app that categorizes people or things along two dimensions: lawful vs. chaotic & good vs. evil.
- NASA-Weather: Web app that integrates two APIs to return all NASA locations, alongside real-time weather conditions at said locations.
- Tic-Tac-Toe: Interactive two-player game with win and draw conditions, featuring a creative and unique waffle-themed user interface.
- p53 Gene Analysis: DNA software that analyzes the p53 tumor suppressor gene, displaying results in the form of charts and other visuals.

WORK EXPERIENCE

Software Engineer   *Aug 2023 – Present*
Resilient Coders   *Boston, MA*
- Designed user-friendly, responsive, and dynamic full-stack web applications, incorporating user authentication and RESTful API endpoints.
- Built and maintained databases with MongoDB, connecting them with web applications and ensuring data security and scalability.
- Conducted testing and debugging to maintain and improve app quality.
- Collaborated with team members, utilizing Git and GitHub for version control and project management.

Academic Tutor   *Mar 2021 – Aug 2023*
Various Clients   *Boston, MA*
- Taught SAT/ACT, elementary math and reading, and math competitions.
- Designed customized, interactive lesson plans to enhance subject comprehension and critical thinking.
- Issued progress reports and arranged parent meetings to collaboratively set academic goals.

Founder and President   *Oct 2017 – May 2021*
Carnegie Mellon University Science Olympiad   *Pittsburgh, PA*
- Promoted equitable access to STEM education by hosting science competitions for thousands of youth across the nation.
- Raised over $40K from sponsors like General Motors.
- Received awards for educational outreach and organizational excellence:
    Gelfand Student Educational Outreach (2020)
    Outstanding Student Organization Program (2019)

Research Assistant   *Sep 2017 – Mar 2019*
Carnegie Mellon University   *Pittsburgh, PA*
- Researched human cognition and metacognitive illusions, generating quantitative and qualitative data.
- Conducted procedures on hundreds of research participants, recording observations, findings, and outliers.
- Coordinated participant appointments, correspondence, and compensation, and onboarded new researchers, optimizing lab schedule.

SKILLS

Programming Languages:
- JavaScript
- Python
- SQL

Frontend Development:
- HTML, CSS
- Bootstrap, Tailwind
- React

Backend Development:
- Node.js, Express
- EJS

Databases:
- MongoDB
- MySQL

Data Visualization:
- NumPy
- Matplotlib

Other:
- Git, GitHub
- APIs

LANGUAGES

Native Proficiency:
- English
- Chinese

Intermediate Proficiency:
- Spanish

EDUCATION

B.A. Biological Sciences
Carnegie Mellon University – May 2021
- 3.57 GPA
- High Honors
- 15-110: Principles of Computing

CERTIFICATIONS

Responsive Web Design
freeCodeCamp – Aug 2023