SARAH A. YU
SOFTWARE ENGINEER

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EDUCATION

Carnegie Mellon University   *Aug 2017 – May 2021*
B.A. in Biological Sciences, Minor in Computer Science   *Pittsburgh, PA*
- Developed a program to characterize the p53 tumor suppressor gene using Python, NumPy, and Matplotlib.
- Built an app to analyze DNA for Alzheimer's risk using JavaScript, Node.js, Express, and MongoDB — see demo.

EXPERIENCE

Software Engineer (Contract)   *Apr 2025 – Present*
Chemistry   *Atlanta, GA (Remote)*
- Develop responsive websites from high-fidelity designs and brand guidelines using HTML, SCSS, JavaScript, and PHP, integrated within custom WordPress themes and Dockerized environments.

Web Developer & Consultant   *Aug 2022 – Present*
Nutrition by Nada, Accel Learning, Townsend Tutors, among others   *New York, NY (Remote)*
- Developed and deployed custom websites for small businesses using HTML, CSS, JavaScript, PHP, and WordPress.
- Built nutritionbynada.com, integrating a blog and appointment system to streamline patient access to services.
- Created accellearning.com, embedding video calling to enable remote tutoring, increasing revenue by 31%.
- Enhanced SEO by optimizing metadata, backlinks, and site speed, improving search visibility and user engagement.

Software Engineer   *Aug 2023 – Sep 2024*
Resilient Coders   *Boston, MA (Remote)*
- Engineered and deployed scalable full-stack applications using React, HTML, CSS, JavaScript, and Node.js, integrating API endpoints, user authentication, and real-time data processing.
- Constructed and optimized MongoDB and MySQL databases, decreasing query response times by 25%.
- Conducted visual QA with Cypress and Percy for design accuracy, cross-browser compatibility, and accessibility.
- Implemented a CI/CD pipeline in GitHub Actions, reducing manual testing by 50% and accelerating release cycles.

Software Engineer (Contract)   *Apr 2024 – Aug 2024*
Eastern Virginia Medical School   *Norfolk, VA (Remote)*
- Developed websites using HTML, CSS, and JavaScript for a rebranding and merger initiative, managing 250,000+ monthly page views across evms.edu, evmsmedicalgroup.com, and evmsfoundation.org.
- Designed website prototypes and pattern libraries in Figma, creating responsive and visually appealing UIs.
- Enhanced user engagement by refining navigation flows and A/B testing CTAs, improving conversion rates.
- Implemented encryption and multi-factor authentication to safeguard medical data, ensuring HIPAA compliance.

Software & Quality Assurance Intern   *Jun 2024 – Aug 2024*
Massachusetts State Lottery   *Boston, MA (Hybrid)*
- Developed an Optical Character Recognition (OCR) program using Python, PyTesseract, and Selenium to scan and extract lottery ticket data, verifying serial numbers and other information against a MySQL database.
- Automated the input of ticket information into an Excel document using Python, eliminating manual data entry.
- Performed unit, integration, and end-to-end testing to improve code quality and reduce post-deployment issues.

SKILLS

Programming Languages: JavaScript, Python, PHP, SQL
Front End: React, HTML, CSS/SCSS, Bootstrap, Tailwind
Back End: Node.js, Express, EJS, REST APIs
Databases: MongoDB, MySQL
Testing: Jest, Vitest, Cypress, Percy, Selenium

Data Analysis: NumPy, Matplotlib, Pandas
DevOps: Docker, Git, GitHub Actions
CMS: WordPress, Drupal, Terminalfour
OS: Windows, WSL, Linux (Ubuntu), macOS
Other: Figma, UI/UX design, WCAG 2.1, SEO, HubSpot