Shawn Gao

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EDUCATION

Texas A&M University	College Station, TX
Bachelor of Science in Computer Science, Minor in Statistics	*Aug 2022 – May 2026*

SKILLS

Languages: C/C++, HTML/CSS, Java, JavaScript, OpenGL, Python, R, Racket, SQL
Technologies/Frameworks: React.js, Node.js, GitHub, WordPress
Developer Tools: AWS, Docker, Firebase, Git, Google Cloud Platform, MongoDB, PostgreSQL, Tableau

EXPERIENCE

Amazon Web Services — Seattle, WA
Software Development Engineer Intern - Amazon GuardDuty — *May 2025 – Aug 2025*
- Implemented efficient metrics logging in a Spark processor that consumes 10 billion+ VPC Flow Logs per minute
- Collaborated with security engineers to build automated dashboards for the new metrics
- Provided actionable insights into detections, leading to a lower false positive rate in Brute Force and DoS attacks

Texas A&M University — College Station, TX
IT Technician – Dept. of Electrical & Computer Engineering — *Jan 2025 – Present*
- Resolved issues with printers, PCs, laptops, and meeting room technology, as well as network problems
- Assisted faculty and graduate students with research software and advised on tech best practices

Sketch Recognition Lab — College Station, TX
Undergraduate Research Assistant — *May 2024 – Jan 2025*
- Explored applications of magnets and ultrasonics for accessible human-computer interaction
- Used particle swarm optimization to find the position/orientation of a stylus above a magnetometer array
- Implemented machine learning using a Hidden Markov Model to recognize signatures in 3D space

Reynolds & Reynolds — College Station, TX
IT Bench Technician — *Aug 2022 – Feb 2023*
- Evaluated and repaired used PCs, displays, network devices, servers, and other items
- Maintained databases to track history on parts, equipment, repairs, and file other information

TAMU Chinese School — College Station, TX
Teacher — *Jul 2020 – Jul 2022*
- Taught classes of ages 8-16 in small and large groups of 3-15 students
- Created curriculum to teach programming concepts starting in Scratch, and moving into Python and Java
- Planned events to help ESL students learn about Chinese-American culture and develop life skills

PROJECTS

Ghost Frames | *C, C++, Python, Scapy, React.js, Node.js*
- Injected custom 802.11 frames to enable wireless message transmission, including data encryption
- Built a TCP-like transmission protocol for packet parsing, data reconstruction, and error correction
- Created an Electron desktop application for users to send messages and files

Ray Tracer | *OpenGL, GLSL*
- Created a custom ray tracer in OpenGL, supporting shadows, reflections, and multiple light sources
- Implemented BVH, anti-aliasing, soft shadow, and refraction to more efficiently and accurately render objects

Point of Sale Website | *JavaScript, HTML, CSS, PostgreSQL, AWS, React.js, Node.js, Render*
- Worked in a team to create a mock restaurant website for customers and employees, employing Agile methodology
- Built a user-friendly React interface with a Node.js backend on AWS, and populated with mock sales data
- Added accessibility options and features based on user feedback, including OAuth login and Google Translate

Tiny Social Network Service | *C++, Docker*
- Developed a distributed coordinator for an SNS using gRPC to manage server-client interactions
- Implemented multi-client request handling and synchronized message passing