

MAX ZHOU

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EDUCATION

The University of Texas at Austin

May 2022

Bachelor of Science in Electrical Engineering | Software Engineering Track | GPA: 3.46

Certificate in Computer Science

McCombs School of Business Post Graduate Program in Artificial Intelligence & Machine Learning

August 2024 – Current

Computer Skills: C++, Python, CMake, SQL, Java, C#, Javascript, HTML, CSS, Confluence, Docker, Kubernetes, Helm, AWS, GDScript

EXPERIENCE

Amazon – Software Development Engineer, Amazon Lab126

August 2022 – May 2024

- Identified, designed and developed system-wide diagnostic and performance metrics for resource manager (RM) and notifications manager (NM) system services to be emitted by Amazon devices using the internal Minerva service to upload data to S3
- Improved stability of the RM, NM, and idle manager (IM) system components by writing and maintaining over 100 C++ unit and integration tests using Google Test and Google Mock. Set up nightly test automation for RM via python script.
- Created and managed JSON configuration files for IM, NM, and RM to manage and customize component settings on a per device basis for all future Amazon devices
- Updated NM C++ APIs to become ABI stable; designed a new NM that was independent and scalable across multiple devices types
- Engaged in 3rd party customer meetings about current and future capabilities of NM and incorporated customer feedback
- Finalized first iteration of ABI stability code gen using CMake to verify apps versioning across all apps on future Amazon devices
- Point of contact for communicating with ~10 first-party components teams to avoid breakage of mainline by notifying them of updated component APIs, guiding them through maintaining continuity, and resolving multiple dependencies within the teams
- Led on-call ~20% of the time to triage and debug various devices, cherry pick commits to prior versions, and run office hours
- Mentored the team intern by holding weekly meetings to provide technical and professional guidance, helping to debug their code, and advising them on their summer project to help them receive a return offer

Citi – Enterprise Operations and Technology (EO&T) Summer Analyst, Public Cloud Platform Engineering

June 2021 – August 2021

- Deployed and tested a Helm Chart utilizing GitHub to an Amazon Elastic Kubernetes Service Cluster to help future app developers as part of firmwide initiative to transfer Citi's internal infrastructure to public cloud
- Documented Helm Chart creation process in Confluence, including common errors and issues, providing clarity and guidance to Service Reliability Engineering (SRE) team to facilitate future use
- Created Platform Engineer Journey Map, including training resources, to capture the user experience for platform tools

LEADERSHIP EXPERIENCE AND ACTIVITIES

Institute of Electrical and Electronics Engineers (IEEE) – Vice Chair (Fall 2021 – Spring 2022)

Fall 2018 – Spring 2022

- Managed a team of 15 officers to host biweekly meetings and social events for Electrical Engineering students at UT Austin
- Created a Python script of 100+ lines to read in data (member participation, events, member list, etc.) from Google Forms and output an Excel spreadsheet for over 120 members to monitor club statistics
- Liaised between advisors and corporate vendors to optimally handle a budget of \$34,000 for the organization

PROJECTS

Dew – Personal Project

May 2024

- Lead code developer of a 2D water-themed Puzzle Platformer with over 15 levels for Pixel Game Jam 2024, an annual competitive event hosted by SanForge Studios where teams of up to 3 develop a themed game from scratch over 10 days
- Learned the intricacies of the Godot game engine in 5 days, using its own language (GDScript) and its unique system of nodes and scenes to code responsive player movement, smooth level transition, self-coded physics, interactable objects, and particle systems
- Listened to feedback of ~15 QA testers to deliver a product that players of all skill levels would be able to enjoy
- Rated by the public to be one of the top 40 games out of 700+ game submissions

Digi Physica – Senior Design Project

Fall 2021 – Spring 2022

- Collaborated with a 6-person team to design, test, and build an arm sleeve that provides real-time motion capture and measurement of a patient's movement to help enhance the accuracy and efficiency of virtual physical therapy sessions
- Interviewed ~10 physical therapists (PTs) to determine pain points within virtual therapy and developed correlating mitigants
- Utilized BNO-055 sensors and OpenCV and MediaPipe libraries to obtain accurate measurements that were then transformed into visual charts for PTs to track progress with patients and tailor unique exercises to each patient