DIANA ZHANG

SYSTEMS DESIGN ENGINEERING STUDENT

CONTACT

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SKILLS

LANGUAGES

Scripting (Python, Bash, JS)

RTL Design (VHDL, SystemVerilog)

C/C++

Java

MATLAB

SQL

Web Development (HTML, CSS)

TOOLS/FRAMEWORKS/DEVICES

Git

FPGA

Altium Designer

VC Spyglass Lint & Clock Domain Crossing

TeamCity

CAD (SolidWorks, AutoCAD, Onshape)

Arduino

Jupyter

EDUCATION

UNIVERSITY OF WATERLOO
Candidate for Bachelor of Applied Science, Systems Design Engineering
2021 – 2026

EXPERIENCE

SILICON CAD HARDWARE ENGINEERING INTERN
Untether AI | Sept 2022 – Dec 2022 | Toronto, ON

- Developed LRM-compliant **SystemVerilog** builds and netlists for components of SpeedAI240 inference chip, adhering to ASIC design flows and agile release schedules
- Implemented and maintained standardized lint and clock domain crossing tracking system to perform checks on RTL blocks using **VC Spyglass**, improving verification efficiency by identifying critical issues daily
- Designed pipeline utilizing **Python** and **Bash** scripts to parse through ~2 million text file lines and pull violation summaries. Automatically graphed imported data using **Jupyter Notebook** and Google Sheets **RESTful API**
- Leveraged CI/CD methodologies in a project managerial role, working cross-functionally with design and verification teams to assign and reduce error count by **99.3%** (12,398 → 92). Prevented further complications by enforcing pre-merge checking system through **TeamCity** and **Github Actions**

IT AUTOMATION DEVELOPER
Sentia Solutions | Jan 2022 – Apr 2022 | Richmond Hill, ON

- Implemented **Ansible** testing environment in **MS Azure** to automate configuration and patch management of high-value IT solutions in VMware, Windows, Linux and AIX, effectively reducing need for manual execution
- Designed business workflow automation solutions using **MS Power Automate** to build an in-house parser for COVID assessments and request forms, expediting provisioning and eliminating costs associated with using third-party resources
- Provided exceptional customer service and problem-solving skills to resolve tickets in **ConnectWise Manage** and thoroughly documented change management processes through RAID logs

PROJECTS

UW ORBITAL SATELLITE DESIGN TEAM
Attitude Determination & Control Systems Member | Jan 2022 – Present

- Applied collaborative and iterative design approach to develop lightweight and cost-effective orientation controls for CubeSat satellite
- Streamlined in-house magnetic torquer manufacturing process by creating solenoid winding mechanism using **Arduino Uno** and PCB printed actuator in **Altium Designer**
- Performed rigorous testing on magnetic torquers, ensuring consistent conditions by designing 3D printed testing stand in **Onshape**

WATERLOO ROCKETRY DESIGN TEAM
Recovery Electronics Member | Sept 2022 – Present

- Designed recovery electronics sled and testing methodologies to optimize mass, length and serviceability, ensuring proper parachute deployment