RAVYU

Undergraduate CS Student

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EDUCATION

B.Sc. in Computer Science

University of Illinois at Urbana-Champaign   📅 Aug 2020 –

WORK EXPERIENCE

Software Design Studio Course Assistant

UIUC CS Department   📅 Jan 2021 – May 2021

- Taught students on programming fundamentals: Object Oriented Programming (C++/Java), black box testing, build automation tools (Maven/Cmake)
- Assessed and graded students code on weekly projects, with an emphasis on strong programming practices (modularity, object decomposition, encapsulation, documentation, testing).
- Hosted weekly Code Review sessions to facillitate discussion on programming practices with students.

Backend Developer

CloudZen Pte., Ltd.,   📅 Jan 2018 – Apr 2018

- Developed backend infrastructure for the Company's flagship project—Gamecloud. Setup a Leaderboard database (MongoDB + Redis) that is linked via API endpoints defined in Azure Functions.
- Designed network pipeline for latency sensitive applications like game streaming over both cellular and WAN connections. Contributed to the UDP socket programming team.
- Spearheaded virtualization infrastructure setup with focus on performance for gaming. The virtualization infrastructure was built on a KVM-based virtualization platform, with Proxmox used for cluster management.

LEADERSHIP

Lead Programmer

ACS(I) Robotics Club   📅 Jan 2016 – Nov 2017

- Led club as head programmer during competitions (VEX Worlds, RoboCup). Coordinated team efforts with weekly meetings leading up to the competitions, and guided junior members along the way.
- Programmed microcontrollers in various instruction sets (ARM Cortex-M, Atmel AVR) in embedded C and assembly.
- Designed custom circuit boards, experienced in soldering and EAGLE Design. Also picked up mechanical skills (sawing, drilling) for robot construction.

Air Warfare Officer

Singapore Armed Forces   📅 Apr 2018 – Apr 2020

- Trained as Air Traffic Control (ATC) Officer; in charge of recovering air assets in the event of national emergencies.
- Led ATC operations briefs on a weekly and daily basis. Managed communication between various base squadrons during day-to-day operations.
- Completed service on April 10th with the rank of Lieutenant.

PROJECTS

Air Traffic Control Currency Tracker

Republic of Singapore Air Force   📅 Apr 2019 – Apr 2020

- Revamped Air Traffic Controller eligibility tracking system in Squadron to ensure controllers' skills remain current, thus preventing ineligible controllers from controlling.
- The project made use of the Telegram Bot framework for the frontend and Google Apps Script (JavaScript) for the backend, with a focus on high-availability and security to meet operations-sensitive demands.
- Gave monthly progress presentations to base commanders, showcasing product demo builds.

COURSEWORK

| Discrete Structures | Data Structures (C++) | Computer Architecture | Programming Studio (Java/C++) | Calculus I-III |