

RAVYU

Undergraduate CS Student

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🏠 Ravyu 🌐 RavyuS 📊 GPA: 4.0

EXPERIENCE

CS 126 Course Assistant

UIUC CS Department

📅 Jan 2021 – May 2021 📍 Champaign, IL

- Teach and assess students on programming fundamentals:
 - Object Oriented Programming (C++/Java)
 - Black box testing
 - Build Automation tools (Cmake)
- Host weekly Code Review sessions to facilitate discussion on programming practices with students.

Backend Developer

CloudZen Pte., Ltd.,

📅 Jan 2018 – Apr 2018 📍 Singapore

- Worked on 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.
- Involved in System Administration. Setup virtualization backend with Proxmox and KVM with focus on performance and latency for game streaming.

Lead Programmer

ACS(I) Robotics Club

📅 Jan 2016 – Nov 2017 📍 Singapore

- Led Team's programming division during competitions (VEX Worlds, RoboCup)
- Basic knowledge in programming microcontrollers in various instruction sets (ARM Cortex-M, Atmel AVR)
- Designed custom circuit boards, experienced in soldering and EAGLE Design
- Basic mechanical skills (sawing, drilling, etc).

Air Warfare Officer

Singapore Armed Forces

📅 Apr 2018 – Apr 2020 📍 Singapore

- Trained as Air Traffic Control Officer; in charge of recovering air assets in the event of national emergencies.
- Completed service on April 10th with the rank of Lieutenant.

President

UIUC Singapore Students Association

📅 Mar 2021 – 📍 Champaign, IL

NOTABLE AWARDS



VEX Worlds

2017 Division Finalist
2016 Division Quarter-Finalist



VEX Skills Programming Qualifiers 2016

2nd in World rankings (out of 4000 teams)

TECHNICAL SKILLS

C/C++



Java



LAMP stack + AWS



React-Native



Embedded Systems



Autonomous Systems



TensorFlow/PyTorch



COURSEWORK

Discrete Structures

Data Structures (C++)

Computer Architecture

Programming Studio (Java/C++)

Calculus I-III

EDUCATION

B.Sc. in Computer Science

University of Illinois at Urbana-Champaign

📅 Aug 2020 –

PROJECTS

Air Traffic Control Currency Tracker

Republic of Singapore Air Force

📅 Apr 2019 – Apr 2020

📍 Singapore

- 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.

Open Source Initiative

ACS(I) Robotics Club

📅 Nov 2016 – Apr 2017

📍 Singapore

Led an initiative to switch to open source robotics platforms for use in Competitions.

- Conducted workshops on how to read instruction set manuals for Arduino (AVR) and datasheets for sensors/electronics.
- Taught basic computer architecture concepts (ALUs, registers, IO)
- Setup procurement channels for electronic parts.

Self-Hosted cloud server

📅 Ongoing

Converted my desktop to a cloud server for myself.

- Running full LAMP stack with Nextcloud (Cloud storage), Gitea (Git server), SSH, VNC.
- Familiar with Linux OS (network management, bash scripting, systemd, software RAID).
- Currently inaccessible outside of University network due to restrictions.
- Working on secure remote WOL (Wake on LAN) solution.

OTHER ACHIEVEMENTS



DSTA Code_EXP 2020 Finalist

National mobile app hackathon; University category



DSTA TIL 2020 Finalist

Machine Learning Robotics based hackathon; University category



Singapore VEX Nationals 2016

Tertiary Division Champions
Tournament Excellence Award
Programming Skills Champions



CodeForCorona Hackathon 2020 Finalist

Open category



RoboCup Singapore 2017

4th Placing



School Awards

Certificate of Distinction for contribution in Robotics-2016, 2017

Distinguished Service Award for Exemplary Leadership-2017