# **Lawrence Liu**

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## **EDUCATION**

**Stony Brook University** 

Stony Brook, NY

Bachelor of Science in Computer Science

Expected: May 2024

**Relevant Coursework:** Object Oriented Programming (Java), Data Structures and Algorithms (Java), Programming Abstractions (OCaml, Java, Python), System Fundamentals I and II (MIPS Assembly, C), Analysis of Algorithms

#### **PROJECTS**

#### Printer Dashboard (C#, VueJS, pgAdmin, Docker)

May 2022 – Present

- Developed a web application for 90 campus printers that are not accounted for when experiencing errors or jams.
- Retrieved individual printer's data by collecting the printer's OID, which is then used in a SNMPwalk.
- Increased efficiency for students and staff to monitor and act upon seeing a critical error for each printer.

#### Google Spreadsheet Logger Package (C#, NuGet)

July 2022 - August 2022

- Contained data of 90 campus printers whose status and conditions need to be monitored in hourly time intervals.
- Allowed users to dynamically manipulate spreadsheet cells and modify new sheets using Google Cloud console.
- Streamlined the collection of logged information by enabling integration into any other projects as a NuGet package.

#### **Dynamic Memory Allocation (C)**

March 2022 - April 2022

- Generated own representation of memory allocation for the x86-64 computer architecture.
- Allocated memory by assigning memory space during runtime based on a segregated free list.
- Implemented an algorithm to compute internal fragmentation and peak utilization.

## Zork Adventure Game (Java)

April 2021 - May 2021

- Parsed through a text file as an m-ary tree for the player to traverse; clone of Zork, a text-based game.
- Traversed the tree using a recursive algorithm; constructed every node that was then assembled into the tree.
- Managed Java's File I/O to allow players to create or edit the adventure and save data in the game.

#### WORK EXPERIENCE

## Stony Brook University Campus Residence's IT

Stony Brook, NY

Full-Stack Developer

March 2022 – Present

- Worked with a team of 5 on building web applications including dashboards, packages, and scripts.
- Utilized the agile development methodology; mainly using C# and APIs to grab data, outputted with variants of JS.
- Showcased issues, progress, and changes on a weekly basis within our team to plan ahead for future projects.

# Stony Brook University Campus Residence's IT

Stony Brook, NY

Student Technician

August 2021 – Present

- Collaborated with 16 technicians to brainstorm and resolve issues for 9,868 students and 1,500 staff.
- Managed computers by imaging new ones or handling anomalies to ensure that staff devices are up to date.
- Presented excellent customer service to professional staff and students for any of their computer problems.

## **EXTRACURRICULARS**

# **College of Engineering and Applied Sciences**

Stony Brook, NY

Peer Mentor

May 2022 – Present

- Guided 3 freshmen majoring in computer science to get accustomed to the academic workload.
- Held weekly sessions with 3 freshmen mentees to assess and assist in the assimilation to college.
- Acted as a role model to be able to steer freshmen down a passionate and enjoyable path.

#### **Chinese Association at Stony Brook (CASB)**

Stony Brook, NY

**Event Coordinator** 

September 2021 – Present

- Coordinated 20 engaging events to assimilate the general body members with Chinese cultural aspects.
- Ensured completion of events by maintaining flexibility and making decisive changes during events when necessary.
- Attended weekly meetings with 33 other cabinet members to deliberate events and what can be improved.

# **SKILLS**

**Programming Languages**: Java, C#, Python, ReactJS, C, JavaScript, MIPS Assembly, HTML/CSS, VueJS, OCaml **Tools**: Git, .NET Framework, pgAdmin (PostgreSQL), Docker, NuGet, Microsoft Office, LaTeX