**Pratush Kc**

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www.linkedin.com/in/pratush-kc-533536141 | GitHub: https://github.com/PKC42
Website: https://pkc42.github.io

## Skills

**Programming Languages and Skills:** C, C++, Python, HTML, CSS, Git, MATLAB
**Operating Systems:** Windows 10, Linux, macOS
**Software:** Solidworks, Autodesk Eagle, KiCad, Multisim, Cura, MPLAB, Docker, Nginx, Wireshark, WireGuard, Nessus Vulnerability Scanner, John the Ripper, Ncrack, Nmap, Easy-RSA

## Education

**B.S.E in Electrical Engineering and Computer Science, Minor in Mathematics** **January 2023**
University of Massachusetts Lowell, Lowell, MA
Cumulative GPA: 3.035, Computer Science Major GPA: 3.503

## Projects

**FlightStats (2023)**

- Developed a simple C++ application that scans a folder populated with .csv flight files from FlightRadar24, parses the contents and outputs several derived statistics into a .rpt file.
- Includes an option to utilize multithreading during the parsing and calculations process using a simple thread pool class.

**SecureDrop (2022)**

- Worked in a team of 3 to develop a multi-threaded application in Python capable of securely transmitting and receiving files between peers using IP, UDP, TCP and TLS protocols.
- Implemented security features such as password hashing, encryption and certificates.
- Tested the application using multiple virtual machines.

**Northeast Educational and Developmental Support (NEEDS) Programmable Spoon (2021–2022)**

- Worked in an interdisciplinary team of 4 to engineer and fabricate a smart spoon with the goal of guiding individuals with disabilities during meals for the NEEDS center.
- Delegated work and communicated with all parties involved.
- Organized tasks and meetings.
- Designed and 3D printed the body of the spoon using Solidworks.
- Designed a printed circuit board (PCB) for all the specified components using Autodesk Eagle.

**Evil Hangman in C (2022)**

- Utilized a binary tree, a C implemented vector and unit testing to create a game of Hangman that is nearly impossible to beat.
- Used Valgrind and gdb to identify memory leaks.

## Work Experience

**Kiosk Technician at Magnet Analytics, Lexington MA** **(2017 – 2022)**

- Replenished automated kiosks with products + troubleshot and repaired faulty kiosks.
- Analyzed sales to decide on product mix.
- Filled out purchase order forms depending on the status of the current inventory.

**Summer Engineering Intern at Novatio Engineering, Waltham MA** **(Summer 2018)**

- Worked with engineers to manufacture, package, and deliver sheet metal parts.
- Organized and cleaned the workplace + tracked orders and receipts.