

NIRMAL HEGDE

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EDUCATION

University of Waterloo – Candidate for BASc: Systems Design Engineering Sep 2020 - May 2025

Extracurriculars: Systems Design Engineering Class President

Relevant Courses: Digital Computation (**C++**), Design Visualisation (**SolidWorks**)

CS50x: Introduction to Computer Science – EdX Jul 2020 – Aug 2020

Arrays, Algorithms, Memory, and Data Structures using **C** and **Python**

SKILLS

Languages: JavaScript, HTML/CSS, C/C++, Python

Libraries/Frameworks: Node.js, React.js, Express.js, Puppeteer

Tools: VS Code, Git, Heroku, Material-UI, Socket.io, Axios, SolidWorks, AutoCAD, Arduino

PROJECTS

Skrribl.ai 🌐 Sep 2020 - Present

- Web application where users move their finger in front of a webcam to draw images in games like Pictionary
- Developed chat system for users to type guesses for the picture being drawn using **React.js** for frontend/design, along with **Socket.io**, **Express.js**, and **Node.js** for backend/FTP requests
- Currently implementing drawing feature and webcam detection via TensorFlow in **Python**

Node Influencers 🌐 Oct 2020

- Web application which connects social media influencers to businesses that desire an online presence
- Developed UI/frontend using **React.js** and **Material-UI** while performing **GET requests** to obtain data from backend APIs using **Axios**

Game Stats Discord Chatbot 🌐 Jul 2020 – Aug 2020

- Designed League of Legends Discord Chatbot to provide users the ability to **automate** viewing of game stats
- Developed backend functionality using **Puppeteer** in **Node.js** with **async/await** functions to **web scrape** statistics from DOMs while exposing endpoints using Discord API to push the information to Discord chats
- **Over 50 users** implement the chatbot in their daily communication

EXPERIENCE

Founder – Purple Purlers Oct 2018 – Present

- Created charity that collects and donates knitted blankets to help animals in shelters across Ontario
- Developed a marketing campaign using Instagram, YouTube, and unique business strategies
- Spearheaded the establishment of various satellite knitting clubs across the GTA, which has resulted in the charity generating **over 1,200 blankets** and **over \$10,000** in donations to date

Engineering Intern – University of Waterloo Jul 2019 – Aug 2019

- Designed and created robust thermocouple stands to **reduce systematic errors by 15%** during experimentation using rapid prototyping
- Built test suite in **C++** for Adafruit Controllers, Stepper Motors, and **Arduinos** to find faulty components

ACHIEVEMENTS

- **H.K Kesavan Legacy Scholarship:** Awarded to **1/130** Systems Design Engineering students based on leadership
- **ROPSSAA Swimming Gold Medal:** Awarded for placing **1st** out of 50 schools for the 4x400m Free Relay
- **2x DECA Provincial Champion:** Awarded for placing **1st** in Ontario for various project management events