

Harsh Devprakash Gupta

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OBJECTIVE

To obtain an internship or research opportunity that will allow me to utilize my problem-solving skills and advance my abilities in the field of computer science.

EDUCATION

University of Illinois at Chicago (UIC), Honors College

Expected: Dec 2020

Bachelor of Science in Computer Science and Minor in Finance

- G.P.A- 3.64/4.00
- UIC Engineering Merit Scholarship
- Dean's List

Relevant Coursework- Data Structures, Software Design, Systems Programming, Programming Language Design and Implementation, Computer Design, Web Development, Program Design, Programming Practicum, Machine Organization,

SKILLS

Programming: Python, C++, C, F#, MySQL, HTML5, JavaScript, Java, TensorFlow, OpenCV, PHP, Node.js, Laravel, CSS, .NET, GitHub

Systems: LINUX, Windows, MacOS, Ubuntu, CentOS 7, Linux System Administration

Microcontrollers: Arduino, Raspberry PI

Supercomputing: Torque, Moab, Ganglia

Natural Language: English, Hindi, Nepali, German

AWARDS

- 1st Place- Google Tech Challenge 2019, Chicago
- Nehru Institute of Mountaineering – Scaled peak Draupadi ka Danda (18,740 ft), 5680 mts

WORK EXPERIENCE

Engineering Research Facility, High Performance Cluster (HPC) Lab, UIC

February 2018-Present

Lab Assistant

- Implemented a model for prediction of life-threatening objects and achieved 99% precision, even with damaged images.
- Using Deep Learning algorithm to increase the precision for non-life-threatening objects.
- User Account creation and management and addition of GPU nodes.
- Achieving faster memory management by caching data in a scratch memory and storing it in disk drives.
- Checking the scheduler for issues with accepting jobs and solving those issues.

Computer Science Department, University of Illinois at Chicago

January 2019- Present

Computer Science Teaching Assistant

- Instructed three, two-hour labs weekly to help student design, implement software development tools and practices, debugging and testing and advanced language features.
- Held weekly office hours to explain concepts like code management, code smells, design patterns.
- Collaborated with the instructor to provide focused help to struggling students through code review.

Ekta Flow LLC, Software Company in Chicago

June 2019 - August 2019

Software Development Intern

- Achieved better and faster execution of React Application by improving run-time of the database
- Used React and Material-UI to optimize the front-end of a manufacturing process management application.
- Built web applications using Laravel and added features to use API in JavaScript.
- Performed QA testing on microcontrollers and react based applications.
- Collaborated and participated in daily Agile/Scrum meetings, code reviews, sprint planning
- Writing Procedures and SQL queries and procedures as desired by the clients.

RESEARCH EXPERIENCE

- **Fermilab - Robotic Arm Automated Machine Learning:** I have been working with a team developing machine learning and computer vision for use with an autonomous arm used in radioactive environments. The purpose of the robotic arm is to identify nuts/bolts on flanges and be able to place a tool directly over their location in physical space. Project will aid Fermilab.

PROJECTS

Threat Detection App using TensorFlow and OpenCV: Detects life threatening objects like guns, hammers, knives etc.

User Management Web App: Web Application built on Laravel for User Management, allows creation of users, giving access etc.

Restaurant Waiting Management: A complex console application to manage a queue and tables at a restaurant.

Real Time ISS Location: A simple webpage to track the International Space Station location using API.

CTA Analysis Application: .Net Application using MySQL database to analyze the yearly data for Chicago Transit Authority.