# Youngjun Yoo

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## EDUCATION

### PURDUE UNIVERSITY
B.S. in Computer Science Honors
May 2023 | West Lafayette, IN
College of Science
GPA: 3.86 / 4.0

### GENESIS GLOBAL SCHOOL
IB Diploma Program
May 2020 | Noida, India
Salutatorian, IB Final Score: 39/45

## COURSEWORK

### UNDERGRADUATE
- Object-Oriented Programming in Java
- Programming in C
- Discrete Mathematics
- Multivariate Calculus
- Linear Algebra
- Introduction to Statistics

## TECHNICAL SKILLS

### PROGRAMMING
Languages:
Java • Python • JavaScript
C • CSS3 • HTML5 • MySQL • LaTeX
Technologies:
MongoDB • React.js • Node.js •
Express.js • Flask • Git

## HACKATHON

### SPIDER SENSE | Hello World
- Built **Python-based** full-stack website that uses various Python libraries like **BeautifulSoup** and **nltk** for **NLP** and **Google fact checker API** to generate relevant URLs related to user claims.
- **Frontend** was built with HTML5, CSS3, and **JavaScript**, while **backend** was built with **flask**.

## CLUBS

### PURDUE ACM SIGAI
- Working on a project called **Chess Domination Problem**, by using **stochastic local search** and **simulated annealing algorithm** to find the minimum path to win the chess game.

## EXPERIENCE

### PURDUE HACK THE FUTURE | Backend Developer
Sep 2020 - Present | West Lafayette, IN
- Building a **full-stack web application** and a server for **NICHES Land Trust organization** to track and store various items in parks and reservations that need to be removed by volunteers. It will also guide users on park trails/hikes using interactive landmarks and way-points by incorporating **geolocation services**.
- Currently in charge of the **backend server** - Utilizing **Express.js** as a framework for the **server-side development** with **Node.js** and using **MongoDB** for the database to build **RESTful API**.

### ACUBE STUDIO | Android App Development Intern
May 2019 – Aug 2019 | Karnataka, India
- Developed a mobile application that allows people to plan an economic traveling route to prevent scam by taxi / rickshaw drivers.
- Utilized **Google map API** for automatic distance calculation of the traveling route.
- Used **HTML5**, **CSS3**, and **JavaScript** for cross-platform development with the help of **Apache Cordova**.

## RESEARCH

### SAFEREGEX VIP | Undergraduate Researcher
Jan 2021 – Present | West Lafayette, IN
- Contributing to the infrastructure team for deploying **web APIs (AWS EC2)** offering analysis-as-a-service.
- Deploying a **website** that integrates those **APIs** or offers them **in-browser** by in-lining the underlying software, depending on the user's choice.
- Deploying a **backend cloud database** to store **usage logs** and integrate two other **regex tools** into the website.

### DUALITY LAB | Research Assistant
Sep 2020 – Dec 2020 | West Lafayette, IN
- Worked in the **Duality Lab** under the guidance of Assistant Professor **Prof James Davis** at the **Purdue ECE department** to research about regular expressions (**regexes**).
- Developed a **Python-based** web-crawler to extract site-specific **regexes** from large database websites such as **Snort** and **ClamAV**.
- Long-term goal include **testing regex generalizations** and its implications to create a **benchmark** for the **regex engines** to help practitioners.

## PERSONAL PROJECTS

### ISL CONVERTER | Sign-Language Translation Android App
Dec 2018 – Aug 2019
- Mainly built using **Java**, **PHP**, and **Apache Spark** for connecting it to the database that stores user information.
- Quiz function provides O/X quiz based on the **merge sorting** algorithm and previous search history of the user for revision purpose.
- Currently being used by the **500+ visitors** who wish to communicate with hearing-impaired students.