

Youngjun Yoo

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EDUCATION

PURDUE UNIVERSITY

B.S. IN COMPUTER SCIENCE HONORS
May 2023 | West Lafayette, IN
College of Science
GPA: 3.75 / 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 • Jinja • 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

FASOO | SOFTWARE ENGINEERING INTERN

Jun 2021 – Present | Seoul, Korea

- Implement an OWASP based **Full-Stack** Testapp for **WebGoat** through **Flask**, **Jinja template engine**, and **PostgreSQL**.
- Examine and analyze security vulnerabilities of Testapp by using **Sparrow Static Application Security Testing (SAST)**.
- Write **unit tests** for Testapp to test each vulnerability in the cycle of **DevSecOps**, improving the Sparrow SAST's checker functionality.
- **Document Development Life Cycle** for further scalability and to enhance the software's precision and understandability for **end-users**.

PURDUE HACK THE FUTURE | BACKEND DEVELOPER

Sep 2020 – May 2021 | West Lafayette, IN

- Built 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 also guides users on park trails/hikes using interactive landmarks and way-points by incorporating **geolocation services**.
- Took charge of the **backend server** - Utilized **Express.js** for the **server-side development** with **Node.js** and used **MongoDB** for the database to build **RESTful API**.

RESEARCH

SAFEREGEX VIP | UNDERGRADUATE RESEARCHER

Jan 2021 – May 2021 | West Lafayette, IN

- Contributed to the infrastructure team for deploying **web APIs (AWS EC2)** offering analysis-as-a-service.
- Deployed a **website** that integrates those **APIs** or offers them **in-browser** by in-lining the underlying software, depending on the user's choice.
- Deployed 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

- Built using **Java**, **PHP**, and **Apache Spark**.
- 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.