

# Nghia Hoang

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## Education

### Purdue University

Sep 2020 - May 2024 (expected)

Bachelor of Science, double major in Computer Science and Mathematics

- GPA: 3.92/4.0
- Relevant Coursework: OOP, Data Structures, Algorithms, Computer Architecture, System Programming, Compiler, Machine Learning, Software Testing, Competitive Programming

## Skills

**Languages:** C/C++, Java, JavaScript, Python, HTML/CSS, Scala, Ruby, SQL

**Technologies:** Node.js, React.js, MongoDB, MySQL, Git, Docker, AWS DynamoDB

## Experience

Genesys / Indianapolis, IN - Remote

May 2022 - Aug 2022

*Software Engineer Intern*

- Designed and implemented a microservice to keep track of 500 phone numbers used in production for Genesys Cloud Voice team using **Java (Spring)** and **AWS DynamoDB**
- Implemented a python script to eliminate fake numbers in current service saving up to **40%** occupied space
- Implemented a python script to support backward compatibility between services saving up to **15** hours of work
- Set up **Jenkins** test pipeline for **Spring** service and configured **Docker** images for it to run
- Wrote integration tests and deployed the service to AWS platform using **CloudFormation**, **Packer**, **Ansible**
- Documented the service architecture and **20 API endpoints** of the service and wrote performance report

**Purdue Dept. of Computer Science** / West Lafayette, IN

Aug 2021 - Present

*Teaching Assistant*

- Held weekly office hours to assist students with data structure and algorithm topics
- Prepared and graded programming, written assignments for **100+ students**, and answered questions on Piazza

**NTN / HCMC, Vietnam**

May 2021 - Aug 2021

*Software Engineer Intern*

- Developed an e-commerce website that serves as the online shopping platform for the company using **React.js** for the frontend and **Node.js/Express.js** for the backend
- Implemented exporting data from database to CSV files feature used by company's accountants
- Utilized **Google Maps API** to display a list of stores to assist customers in finding the best fit location
- Automated newsletter sending to **500+** subscribed customers via email/text message process, saving up to **10 hours** of work per week

## Projects

### Shell

C++, Lex, Yacc

- Developed a UNIX shell supporting advanced features including line editing, history list, and path completion

### Scribble It

HTML/CSS/JavaScript, Node.js, Express.js, Socket.IO

- Designed and implemented a real-time drawing game web application
- Implemented features including shared drawing canvas, drawing toolbar, real-time scoreboard, chat box, scoring system, game timing system and customized words pool

### Graphing

HTML/CSS/JavaScript, d3-graphviz

- Developed a web application to visualize directed/undirected, weighted/unweighted graphs
- Implemented feature that transforms commands into DOT language strings allowing users to save/share graphs

### HTML Parser

C

- Developed a program parsing text and metadata of HTML file into text file
- Implemented basic data aggregating features including word count and syntax error detecting