Abhishek Gunasekar

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EDUCATION

PURDUE UNIVERSITY
B.S. in Computer Science Honors
Graduation: May 2022
GPA: 3.97 / 4.00

SKILLS

PROGRAMMING
Java • Python • R • C • C++
Shell Scripting • x86-64 Assembly

WEB DEVELOPMENT
HTML • CSS • Bootstrap • JavaScript
ReactJS • jQuery

TECHNOLOGIES
Git • GitHub • Vim • Unix
VSCode • Bash • GDB • Heroku
RESTful API

INDUSTRY KNOWLEDGE
Test Driven Development

LANGUAGES
English • Tamil • Hindi • Spanish

EXTRACURRICULARS

ORGANIZATIONS
Board Member of
• ACM
• IEEE Computer Society
• Web Development Club
• Hindu Yuva

COURSEWORK

COMPUTER SCIENCE
Data Structures and Algorithms
Object-Oriented Programming in Java
Systems Programming
Computer Architecture
Programming in C
Computing Tools

MATHEMATICS
Multivariate Calculus
Elementary Linear Algebra
Discrete Mathematics
Intro to Statistics

RELEVANT
Technical Writing/Presentation

AWARDS

Purdue University-Dean's List

INDUSTRY EXPERIENCE

BAYER | Software Engineering Intern
Fall 2019 | West Lafayette, IN
- Collaborated to analyze phenotype data using **R** to devise efficient crop health management strategies.
- Developed a matrix based recommender system to predict yield pattern of crops at a **95% confidence level.**
- Spearheaded interdisciplinary seminars and engaged in project based learning for **R, data visualization, and bash.**

JENSEN INVESTMENT MANAGEMENT | IT Intern
Summer 2019 | Lake Oswego, OR
- Worked with Jensen's Operations team on a project which involved structuring **stock market data.**
- Utilized Python's third party libraries such as **openpyxl and xlrd** to parse CSV and EXCEL files.

ACADEMIC EXPERIENCE

TEACHING ASSISTANT | Data Structures & Algorithms
Fall 2020 – Present | West Lafayette, IN
- Constructed weekly PSO videos to demystify **Stack, Queue, Heap, Red- Black Trees,** and other data structures for students.
- Helped professor with grading assignments of **400+** students, and created challenging problems for learners.

HELP ROOM TUTOR | Purdue Undergraduate Student Board (USB)
Fall 2020 – Present | West Lafayette, IN
- Mentored incoming freshman transition to the CS Department at Purdue University.
- Conducted weekly review sessions to explain tough concepts in **CS193 (Tools)**, **CS180 (Java)**, **CS182 (Discrete Math)**, and **CS240 (C).**

PROJECTS

TESARACT | Command-Line Interpreter
- Developed my own **Unix Shell** from scratch that combines behavior from common shell programs including **bash and csh.**
- Programmed using **C, C++, Lex, and Yacc.**

CYBERBUDDIES | ReactJS App
- Coded a front-end web app with a search function.
- Built using **ReactJS, JSX, HTML5 and CSS.**
- Rendered and deployed using **GitHub Pages.**

WALLY WEBSERVER | HTTP Server
- Programmed a multi-threaded HTTP server which allows any HTTP authenticated client to browse a website and retrieve content.
- Developed with **C/C++** and implemented concurrency using **fork, threads, and mutex locks.**

QUOTE GENERATOR | RESTful API
- Inspirational quote generator built with **forismatic RESTful API.**
- Deployed using **Heroku** by creating a proxy server.