Vignesh Venkatesh

vigiii.com | linkedin.com/in/vignesh-2k3 | github.com/Vignesh-Venkatesh

EDUCATION

The Pennsylvania State University — State College, PA
Bachelor of Science, Computer Science — *Aug. 2021 – May 2025*
- ***Cumulative GPA***: 3.5/4.0
- ***Relevant Coursework***: Data Structures and Algorithms - Object-Oriented Programming - Digital Design - Data Management for Data Sciences - Systems Programming - Programming Language Concepts - Theory of Computation
- ***Involved in***: HackPSU - Design Team

EXPERIENCE

Distributed Control Systems - Intern — May 2024 – June 2024
Yokogawa Electric — *Abu Dhabi, U.A.E*
- Executed inspections of DCS cabinets, ensuring adherence to functional design specifications.
- Developed alarm suppression systems, step function, and moving average block for industrial plant monitoring systems.
- Assisted in managing project engineering life cycles, contributing to the inception stage.

Digital Design Course - Learning Assistant — Aug. 2023 – Present
The Pennsylvania State University — *State College, PA*
- Managed and moderated an online class forum, providing feedback on student posts and facilitating discussions.
- Assisted the professor in grading assignments, ensuring timely and accurate evaluation of 200+ submissions per week.
- Collaborated with the professor and other teaching assistants to develop course materials and content.

PROJECTS

Dynamic Memory Allocator – GitHub
- Designed and implemented a dynamic memory allocator, optimizing memory management through efficient allocation and deallocation of blocks in a custom heap system.
- Developed a segregated free list to organize memory into bins based on block sizes, improving allocation speed and reducing fragmentation.
- Utilized 16-byte alignment for both allocated and free blocks, ensuring performance optimization and adhering to memory structure constraints.
- **Technical Skills**: C

ReelSleuth – GitHub | Demo
- Developed a website for movie enthusiasts to search, track, and manage movie wish lists and favorites.
- Integrated TMDB API using JavaScript to fetch movie details and cast information.
- Implemented user authentication and data storage features using Firebase, ensuring secure login and personalized user experiences.
- **Technical Skills**: HTML, CSS, JavaScript, Firebase, TMDB API Integration

Chess.com Player Stats – GitHub | Demo
- Developed an interactive Chess.com-Player Stats application.
- Integrated the Chess.com API using JavaScript to fetch player stats across three categories i.e., Bullet, Blitz and Rapid.
- **Technical Skills**: HTML, CSS, JavaScript

TECHNICAL SKILLS

Languages: Python, SQL, JavaScript, C, HTML, CSS
Databases: PostgreSQL, SQLite
Frameworks/Libraries: ReactJS, ExpressJS, TailwindCSS
Developer Tools: Git, GitHub, Visual Studio Code, Postman