Sparshdeep Singh

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EDUCATION

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN
B.S. in Computer Science
Exp. May 2024 | Urbana, IL
Chancellor's Scholar
Grainger College of Engineering
Tech GPA: 3.75 / 4.0

UNIVERSITY OF ILLINOIS LABORATORY HIGH SCHOOL
Grad. May 2020 | Urbana, IL

COURSEWORK

UNDERGRADUATE
Computer Architecture
Database Systems
Discrete Structures
Data Structures & Algorithms
System Programming
UI/UX Design
High Frequency Trading

SKILLS

PROGRAMMING LANGUAGES
Proficient
C++ • C# • Java • SQL
HTML5 • CSS3 • JavaScript
Familiar
C • Python • Kotlin • MATLAB
R • TypeScript • MongoDB

LIBRARIES & FRAMEWORKS
React • Next • Node • Knockout
ASP.NET MVC

TOOLS & PLATFORMS
Git • Microsoft Azure • DevOps
Android • Unity • Wordpress
Firebase

AWARDS

2020 - 2023   Chancellor's Scholar
2020 - 2023   AIM High Grant
2019 - 2023   Illinois State Scholar
2019 - 2019   Frankel Scholar

INTERESTS

Chess • Gardening • Food • League

RELEVANT EXPERIENCE

SOFTWARE ENGINEER INTERN @ National Aeronautics and Space Administration (NASA)
Jun 2022 – Aug 2022 | Cleveland, OH
- Worked with team on optimizations for High-rate Delay Tolerant Networking (HDTN); dealing with technical debt, re-implementing algorithms, ensuring cross-system compatibility
- Developed user interface for HDTN which collects, monitors, and displays program critical telemetry data
- Integrated Dijkstra's and Yen's path-finding algorithms into CGR compatible model; converted python implementation into C++, improving data rates by 20Mbps

APPLICATION DEVELOPER INTERN @ Kenway Consulting
Jan 2022 – Jun 2022 | Chicago, IL
- Worked on web app in scrum format with daily stand-up and 2 week sprints; worked on intern project and sprint/team tasks
- Designed and developed administrator portal in C# & Azure using MVC framework and Knockout.js
- Utilized mySQL to create, pipeline, and filter over 10TB of raw data into relational databases
- Added unit testing and continuous integration; created documentation for client handover

FRONT-END INTERN @ University of Illinois Research Park
Aug 2021 – May 2022 | Urbana, IL
- Created and maintained 5+ websites according to client needs and specifications; implemented Wordpress plugin to track website statistics
- Coordinated meetings with clients & graphic designers; led website development from planning to production
- Updated Research Park website to accessibility guidelines; created Python script to add PDF/ePub functionality

APPLICATION DEVELOPER @ Gies College of Business
Jan 2021 - Jan 2022 | Urbana, IL
- Handled script side network HTTP requests and server communication, designed and implemented new Coursera webpages, and developed class statistic tracking algorithms
- Converted MOOC video lectures into WCAG certified and user-friendly PDFs/ePubs
- Maintained and updated Gies legacy applications to ensure satisfactory delivery to 10000+ enrolled students

PROJECTS

TWITCH DASHBOARD | React
- Fully customizable dashboard utilizing twitch API to import and embed Twitch streams into a webpage
- Supports various accessibility features such as adding/removing streamers, nightmode, and chat interaction
- Saves user preferences using Next and React in Replit database