Sashank Thapa

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Education

Beloit College, Beloit, WI   December 2021
Bachelor of Arts in Computer Science, Minor in Mathematics   GPA:3.97/4.0
Presidential Scholarship Award   Major GPA: 4.0
Coursework: Data Structures & Algorithms, Threads & Operating Systems, Algorithm Design & Analysis, Computer Models & Languages, Software Engineering Capstone, Database Capstone, Linear Algebra, Computer Architecture, Discrete Structures

Skills

Typescript, React, Redux, Next.js, Node.js, Vue.js, Three.js, Python, SQL, MongoDB, Java, Docker, Mocha, HTML5, CSS3, Tailwind CSS, Sass, GLSL, git, PowerShell, bash
Programs: Neo vim, Photoshop, Illustrator, Blender
Language: English (Bilingual), Nepali (Native), Chinese (Elementary)

Experience

Student Coder, Beloit College   Jan 2019 - present
- Streamline account management by writing scripts that can return and edit public user data by querying through LDAP and Google API.
- Teach new coders the fundamentals of Google API and the Active Directory system.

Agile Developer, Working Bikes   Feb 2021 – Apr 2021
- Created a RESTful API using Django to perform CRUD operations on the database.

Developer, Open Energy Dashboard (OED)   Aug 2020 – Jan 2021
- Added new features by implementing reusable react redux components in typescript.
- Created endpoints in Node.js and Express to update state changes in the Postgres database.
- Debugged a Travis CI integration issue that prevented testing on the hosting server.

Designer and Developer, Maker Lab   Aug 2020 – Oct 2020
- Implemented a user interface for lab supervisors to query database using JWT authentication.
- Setup QR code login, API query handling, and form handling for the react frontend.

Personal Projects

中文(Chinese)Flashcards (sasank.codes/cfc)
- Implemented a tree structure in MongoDB paths to represent compound words.
- Designed an interactive tree visualizer using tailwind CSS and Vue with Vuex.

Nepal Covid Locator (nepalcovidlocator.com)
- Created a single page application with routing to display different covid related statistics.
- Integrated an interactive map using React Leaflet to show covid impact.
- Set up a web server with reverse proxy to host both website and Node.js server on same domain.

Academic Experience

Teaching Assistant, Beloit College   Sep 2019 – present
- Teach data structures, time complexity analysis, and approaches for problem-solving.
- Teach students fundamental calculus, discrete structures, and Boolean algebra.

Researcher, Pakula Biomedical Scholars   Jun 2021 – Aug 2021
- Develop multiple supervised learning models and compare them using K Fold cross validation.
- Achieved a 16% improvement over previous models for an HCV patient dataset.

Test Driven Development   Sep 2019 –May 2020
- Designed and developed a python game application in a 5 people group with an Agile approach.
- Wrote unit tests and took part in weekly scrum meetings to discuss coding issues.