Hung Dinh Nguyen

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Work Experience

North Penn Water Authority

Lansdale, PA 2021 - Present

Project Engineer

- Streamline SOPs to decrease processing delays, risk of human errors, and training time for new and existing employees
- Oversee budget, schedule, bidding, construction, and closeout of water tank and transmission main capital projects
- Collaborate with developers, municipalities, and utilities to design, build, and maintain revenue-producing assets
- Supervise consultants' assignments to ensure efficient usage of personnel, expenses, and time during each project phase

Technical Projects

Exercise Tracker – Express, JavaScript, MongoDB, Mongoose

- Created models for user and exercise collections to ensure submissions followed definite requirements and schemas
- ♦ Built endpoints for users to generate new accounts and exercises, and respond with a summary of the updates
- Utilized route parameters and query string to allow users to find a specific user and filter the accompanying exercise log

URL Shortener Microservice – Express, JavaScript, MongoDB, Mongoose

- Developed an endpoint to verify URLs, create a unique shortened version, and respond with original and shorten URL
- ❖ Used route parameters to find the shorten URL in database and redirect the address to the original URL

Timestamp Microservice – Express, JavaScript

Fabricated an endpoint to accept a Unix or valid date, then verify input and respond with the equivalent Unix and UTC

Budget App – Python

- ♦ Built a Class to accept deposits and withdrawals, transfer funds, and display a ledger of transactions with remaining total
- Designed a function to graph a bar chart of the percentages spent by a list of Classes with each class written vertically

Probability Calculator – Python

- Created a Class to accept multiple keywords, convert keys to a list, and randomly pop elements from list based on input
- Devised a function to perform experiments based on user inputs and calculate the probability of achieving a given result

Cash Register – JavaScript

- Programmed a function to calculate the availability of change based on item price, payment in cash, and cash in register
- ❖ Identified change by subtracting payment in cash by item price, then verifying sufficient bills and coins are in register

Roman Numeral Converter – JavaScript

- Created an object of all Roman numerals and their equivalent Arabic numerals, and an empty array
- Built an algorithm to reduce input by object properties until value is zero and return equivalent Roman numeral value

Technical Skills

- ❖ Languages: CSS, HTML, JavaScript, MATLAB, Python
- ❖ Framework: Bootstrap, Express, ¡Query, React
- ♦ Tools: Git, GitHub, Microsoft Office Suite, MongoDB, Mongoose, Node.js, npm, Redux, Sass, VS Code

Education

Drexel University - Philadelphia, PA

Master of Science in Environmental Engineering Bachelor of Science in Environmental Engineering Cumulative GPA: 3.36 Graduation: June 2021