

# Hung Dinh Nguyen

215-439-7929 | Hung.Dinh.Nguyen.B@gmail.com | Philadelphia, PA | github.com/hung-dinh-nguyen

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## Work Experience

### North Penn Water Authority

*Project Engineer*

**Lansdale, PA**

*2021 - Present*

- ❖ 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, jQuery, 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