Long Nguyen

Motivated and recent Computer Engineering graduate equipped with a solid foundation in software design, development, testing, and data analysis. I am eager to leverage my broad educational background, coupled with exceptional analytical, technical, and programming skills, to excel in a junior software engineer role.

EDUCATION

York University

Toronto, ON

B.Eng., Spec. Hons. Computer Engineering

Sep 2019 - May 2023

• Relevant Courses: Design and Analysis of Algorithms, Introduction to Database Systems, Fundamentals of Data Structures, Object Oriented Programming, Computer Vision, Introduction to Machine Learning and Pattern Recognition, Software Design, Computer Architecture

EXPERIENCE

Software Engineer Intern

May 2021 – Jan. 2023

Assure Global Group

Toronto, ON

- Developed and implemented a front-end web application using HTML/CSS and TypeScript
- Utilized back-end API calls to efficiently format and retrieve data for front-end web applications
- Collaborated with UI/UX designers and managers to determine the most suitable design system for each client
- Developed comprehensive test cases for a full-stack web application utilizing Node.js, JavaScript, TypeScript, and MySQL, resulting in a 95% test coverage rate

Projects

tenlalong.com | React, JavaScript, JSX, HTML, CSS

May 2023

- Designed a personal website showcasing my personal experience using React, JavaScript, and HTML/CSS
- Created and formatted both animated and non-animated components to enhance user experience
- Implemented media queries to ensure proper front-end layout on all devices and usage scenarios

Seam Carving | Python, PyTorch, NumPy, Kornia, Computer Vision

Feb 2023

- Developed a Seam Carving algorithm to resize pictures while preserving the important image content
- Implemented a Sobel filter in Kornia's SpatialGradient and applied the concepts of Dynamic Programming, matrix scoring
- Conducted performance testing to make sure the time complexity would be O(n*logn), avoiding longer runtime

RANSAC-based Image Stitching | Python, PyTorch, NumPy, Kornia, Computer Vision

Feb 2023

- Implemented a mosaic/panorama application using Python compositing together a number of images with overlapping fields-of-view in a photography plausible way
- Constructed a mosaic based on affine transformation using either NumPy or Kornia/PyTorch libraries

ImageBot | JavaScript, Node.js, JSON, REST API, Discord.js, Replit

Aug. 2022

- Created a bot that responds to specific commands with keyword triggers by sending corresponding images
- Implemented image retrieval and delivery functionality, enabling the bot to swiftly respond with an image upon user command
- Formatted images as responses for Discord by implementing image rendering and embedding functionality

Everyday HSA CRM, Vyniverse CRM | TypeScript, JSON, REST API, HTML/CSS, Angular

Jul. 2022

- Completed front-end development tasks for customer service and NFT gaming manager website for Assure Global Group
- Made back-end API calls to format the data to the front-end websites
- Collaborated closely with UI/UX designers to ensure the web template aligned with modern design principles and trends
- Conducted thorough testing on the buttons to verify their functionality and behavior, ensuring they respond accurately and reliably to user interactions

${\bf SmartShoppers~Web~Application}~|~{\it Java,~Java~Swing,~MySQL}$

Mar. 2022

- Developed a Java GUI-based store managing application for administrators, managers, and users
- · Presented information system customized for each user
- \bullet Implemented the application using Java and MySQL

TECHNICAL SKILLS

Languages: Java, JavaScript, TypeScript, HTML/CSS, Python, C/C++, MySQL, MongoDB

Frameworks: Angular, React, Node.js, Java Spring, JUnit, Jupyter, CircleCI, AWS

Libraries: Panda, NumPy, PyTorch, Matplotlib, Seaborn, OpenCV, Kornia, Scikit Learn, TensorFlow, NLTK