

Duc Nguyen

[Portfolio](#) [Gmail](#) [GitHub](#) [LinkedIn](#)

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SPECIALIZATION: Backend, Cloud Computing, Deep learning

EDUCATION & CERTIFICATION

Dickinson College

May 2025

Degree (BS), Majors (Computer Science, Mathematics)

Carlisle, PA

- Accumulative GPA: 3.85
- Relevant Coursework: Principles of Object-Oriented Design, Tools and Techniques for Software Development, Data Structures and Problem Solving, Topic in Decision Science, Computability and Complexity, Computing Abstraction, Operation Research, Analysis of Algorithm.

Certification

- Amazon Cloud Practitioner (March 2024)

TECHNICAL SKILLS

- **Programming language:** Python, JavaScript, Java, C++.
- **Technology:** React.js, Redux.js, Prisma, GraphQL, Nest.js, Next.js, Node.js, Pytorch, Express.js, Moleculer.js, MongoDB, RabbitMQ, Tailwind.css, Kafka, PostgreSQL, Vue.js, Maven, HTML, CSS.
- **Miscellaneous:** Jest, Cypress, Docker, Git, Bash, GitHub Action, TypeScript, Linux
- **Cloud services:** AWS, Azure, Digital Ocean.

WORK EXPERIENCE

VinBrain LLC

May 2023 – August 2023

Software Engineer Intern

Hanoi, Vietnam

- **VinBrain** focuses on AI products for healthcare such as software for automated X-ray diagnostics (vinbrain.net).
- Developed RESTful APIs to manage client requests and communicate with anomaly classification and segmentation services.
- Ensembled and fine-tuned hyperparameters of Convolutional Neural Network models to detect and segment anomalies on 2D chest image dataset using **Pytorch**.
- Refactored existing data preprocessing and metrics python files of rectal cancer project, reducing code length by **20 %**.

GoStream LLC

May 2022 - August 2022

Software Engineer Intern

Vinh, Vietnam

- **GoStream's** products allow multi-platform livestream and manage online store (GoStream).
- Designed and implemented API endpoints for managing information of TikTok shop service (**Node.js** and **Express.js**).
- Developed friendly and responsive UI of transportation page adhering to Figma design to ensure pixel-perfect implementation of UI components (**React.js**, **Tailwind.css**, **Antdesign**).
- Designed and built task report application prototype for internal employees implementing Model-View-Controller architecture (**Vue.js**, **Express.js**, **Node.js**, and **MongoDB**).

FarmData

Nov 2023 - Present

Open-source contributor

Remote

- Leveraged **Cypress** testing efficiency by creating functionality that allows developers logging to the terminal in headless mode.
- Wrote **Drupal** scripts allow retrieving users' permission and role when login.
- Opened **2** issues and merged **3** pull requests in upstream repositories.

Polymath Jr

May 2023 - August 2023

Program participant

Remote

- Polymath Jr is a collaborative mathematical research program for undergraduates (Polymath).
- Performed survey on topic Survey in Theoretical Computer Science under the supervision of Daniel Hathcock of Carnegie Mellon University.
- Documented survey on paper [Maximum Matching problems](#).

PROJECTS

Dining service review ([Website](#))

- Design and developed a web application enabling college students to conveniently access the weekly menu and rate food items using descriptive keywords (**React.js**, **Redux**, **Express.js**, **Node.js**, and **MongoDB**).
- Created an admin dashboard that allows managers to manage and update weekly menu.
- Deployed prototype on cloud service **AWS EC2**.

Veggie ([Github](#))

- Built an e-commerce application enabling customers to purchase fresh vegetables at reasonable price.
- Implemented microservices architecture using **React.js**, **Tailwind.js**, **Express.js**, **Node.js**, and **MongoDB**.
- Employing **RabbitMQ** as message protocol for communication among backend services.

SIIM-ACR segmentation ([Github](#))

- Preprocessed dicom medical images of chest x-rays and built a training pipeline to identify and segment Pneumothorax disease in chest x-rays (**Pytorch**).
- Implemented U-Net-like architectures (**UNet**, **ResUnet**, **DenseUnet**) and achieved the highest average dice score of **80%** with **U-Net** employing **ResNet34** as the encoder.