

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
- **Cloud services:** AWS, Azure, Digital Ocean.
- **Operating System:** Linux.

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](#)).
- Trained deep learning models for classification and segmentation tasks to detect anomalies on 2D chest images dataset using **Pytorch**.
- Improved code quality by refactoring **Python** scripts for preprocessing and calculating metric stage of the training pipeline, reducing code size by 40 %.
- Wrote documentation and debugged code for the rectal cancer project.

GoStream LLC

May 2022 - August 2022

Software Engineer Intern

Vinh, Vietnam

- **GoStream** 's products allow multi-platform livestream and manage online store (**GoStream**).
- Worked with the backend team and wrote API middleware for authentication of TikTok shop service using **Node.js** and **Express.js**.
- Built task report web application for internal employees implementing Model-View-Controller backend architecture using tech stack **Vue.js**, **Express.js**, **Node.js**, and **MongoDB**
- Launched prototype on **AWS EC2** instance and automated **CI/CD** process with **GitHub Action**.

FarmData

Open-source contributor

- Collaborated with developers in a team and identified serious bugs in the application's user interface, including loss of display information when resizing the screen.
- Leveraged **Cypress** testing efficiency by creating functionality that allows logging to the terminal in headless mode.
- Wrote **Drupal** scripts allow retrieve 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).
- Worked on project Survey in Theoretical Computer Science under the supervision of Daniel Hathcock of Carnegie Mellon University.
- Wrote survey on Maximum Matching problems.

PROJECTS

Dining service review ([Github](#))

- Created a web application enabling college students to conveniently access the weekly menu and rate food items using descriptive keywords using **React.js**, **Redux**, **Express.js**, **Node.js**, and **MongoDB**.
- Created a content management interface that allows managers to organize weekly menus, and store image files in cloud platform **Azure Blob**.
- Deployed [prototype](#) on cloud service **AWS EC2**.

Veggie ([Github](#))

- Built an e-commerce application enabling customers to purchase fresh vegetables at reasonable price.
- Developed microservices 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 with (**Pytorch**)
- Implemented U-Net-like architectures (**UNet**, **ResUnet**) and achieved the highest average dice score of 80% with **U-Net** employing **ResNet34** as the encoder.