Divyansh Shivashok

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EDUCATION

University of Massachusetts Amherst

Amherst, MA

Bachelor of Science in Computer Science and Mathematics; Major GPA: 3.80/4.0

Expected Graduation: May 2025

EXPERIENCE

Incoming AI/ML-focused Software Engineer Intern

June 2024 – August 2024

Microsoft

Redmond, WA

MIT CSAIL Research Assistant

May 2023 – Present

Computer Science and AI Lab (CSAIL) at Massachusetts Institute of Technology (MIT)

Cambridge, MA

- Researching 3D image diffusion models to improve on generated object quality by developing alternative, improved SDS loss infrastructure.
- Collaborating with MIT PhD candidate Clinton Wang on literature review.

Machine Learning Engineer Intern

June 2023 – September 2023

Fisheue

Maynard, MA

- Created MLOps framework from ground up to analyze real-time data from embedded systems.
- Engineered generative AI apps for product proposal writing and code generation from company codebase.
- Achieved 70+% accuracy in air traffic classification using ML models and Big Data Preprocessing on sensor data.

Machine Learning Engineer Intern

June 2021 – August 2021

Quantiphi

• Built an object detection model to detect and segment liver tumors from 3D CT scan volumes.

- Achieved 98% accuracy (0.98 DICE score) on LITS 2017 dataset using a 2D UNet with ResNet34 backbone.
- Deployed model on Google Cloud Platform to generate API calls to model.

Projects

RouteAble | Python, Tensorflow, PyTorch, ErgoBlockchain, JavaScript, React Native

November 2023

Marlborough, MA

- Launched unique full-stack app to crowd-source images of inaccessible areas, including Blockchain stack in 36 hours.
- Implemented two ML models: object similarity and image detection models to identify unique images of stairs, ramps, guard rails. First and only app with embedded tag generation model for disabled users.
- Won "Best Use of Github Award" sponsored by Major League Hacking (MLH) for unique architecture.

Machine Language Translation | Python, Tensorflow, Keras, Anki

February 2023

- Programmed English to Spanish and French language translation program from scratch with 95% accuracy.
- Trained a language model with Attention mechanism for accurate translation.

American Sign Language Translator | Python, Open-CV, Keras, Tensorflow

November 20

- Developed three machine learning algorithms to convert sign language to English in real time with 97% accuracy.
- Recruited by Berthiaume Center for Entrepreneurship at HackUMass hackathon for start-up potential.
- Designed website back-end using Flask: http://zaranip.pythonanywhere.com/Home.html

Achievements

John E. and Alice M. Flynn Scholarship and Dean's Merit Scholarship Recipient | UMass Amherst 2023

• Selected 1 / 1732 students for two awards for rigor, merit, and dedication to "Computing for the Common Good".

Two-time USNCO High Honors | American Chemical Society

2021, 2022

• Ranked top 50 out of 16000+ competitors twice in the U.S. National Chemistry Olympiad in 2021 and 2022.

PicoCTF Top 50 | Carnegie Mellon University

2021

• Placed top 50 in the nation out of 5,000+ high school teams for cybersecurity competition.

Bristol Programming Competition | Bristol College

2022

• Secured first place in county-wide programming competition for outstanding project.

SKILLS

Languages: Java, Python, C, C++, JavaScript, HTML/CSS, Octave, LaTeX

Spoken Languages: English, Hindi, Intermediate in Sanskrit, Spanish, and Japanese

Developer Tools: Git, Google Cloud Platform, VS Code, Visual Studio, Anaconda, PyCharm, IntelliJ, Eclipse

Interests: Exercising (weightlifting), Reading (philosophy), and Chemistry (organic, physical, analytical)