

Michelangelo Zampieri

michelangelo03@gmail.com | 617-943-0997 | Billerica MA
www.linkedin.com/in/michelangelo-zampieri-87675b288 | <https://github.com/mzampieri19>

EDUCATION

Brandeis University- B.S. In Applied Mathematics and Computer Science Exp Dec 2025
Relevant Coursework: Discrete Mathematics, Data Structures and Algorithms, Operating Systems, Mobile App Development, Mathematics for Machine Learning, Intro to Machine Learning, Intro to Software Engineering
eCornell- Certificate of Foundations in Machine Learning Summer 2024

WORK EXPERIENCE

Software Engineering Internship- Imago Rehab, Hybrid May 2025 - Aug 2025

- Developed software and AI solutions for the leading virtual physical therapy provider company. Aided in maintaining code, creating features and designing the product and system.
- Drove innovation in the company by suggesting, planning, and implementing new AI solutions and features to make the system more user intuitive and modern.
- Worked alongside a team of other full stack engineers directly leading to an increased investor budget of **over 100%**.

Machine Learning Engineering Internship- TAMID, In-Person Jan 2025 - May 2025

- Developed many machine learning models with average **accuracy of 90%** including KNN, Random Forests, LSTM neural network and CNN.
- Worked alongside an experienced group of my peers to plan, coordinate, and develop machine learning models to increase various metrics for a startup, leading to the increased success of the company.

AI Fellow- Real Salary, Remote Aug 2024 - Dec 2024

- Predicted industry, sector and job function of **70,000+** companies and roles for a nation-wide job listings website.
- Achieved accuracy of **85%**, coordinated a team of 5 peers in end to end data preparation and exploration while also facilitated conversations between peers, and industry leaders by coordinating and leading meetings to ensure a successful project and final presentation, submission of deliverables and project artifacts.

PROJECT EXPERIENCE

Text-to-Image Diffusion Model (PyTorch)

- Implemented a text-to-image generation pipeline using diffusion models, GANs, and transformer-based cross-attention.
- Trained a U-Net-based denoising model conditioned on text prompts using DDPM and CLIP-style embeddings.
- Built modules for encoding, attention, latent space manipulation, and scheduler control, resulting in high-fidelity image generation and image-to-image transformations.
- Achieved photorealistic outputs from complex prompts and stylized image re-rendering from input photos.

Custom GPT Language Model (PyTorch)

- Built a character-level GPT model from scratch using PyTorch, inspired by FreeCodeCamp's transformer tutorial.
- Trained 4 model versions, scaling from toy datasets to **1M**-line Common Crawl data with Apple M-series GPU and Google Colab. Implemented all components manually: tokenizer, batch sampling, transformer blocks (multi-head attention, residuals), and training loop.
- Achieved high-quality text generation from classic literature dataset; deployed terminal chatbot using trained models.

LEADERSHIP EXPERIENCE

Co-Captain, AJL Kaggle Competition, Remote Jan 2025 - Mar 2025

- Created a multi-layer CNN to analyze **20+** skin conditions on a sample of different skin tones, achieving an **accuracy of over 80%**, using transfer learning and Tensorflow.
- Delegated a team of 6 peers in bi-weekly meeting, keeping everyone organized in many sprints and communicating with industry leaders to reveal progress and complete deliverables.
- Scored in the **top 3 in over 500 students** and got rewarded a prize for best team coordination.

SKILLS

- Programming Languages: Python, Java, JavaScript, Dart
- Tools: Numpy, Pandas, Scikit Learn, Seaborn, Keras, Tensorflow, PyTorch, MongoDB, AWS, Docker, Gemini API, Transformers, CLIP, DDPM, UNET
- Languages: English, Italian