# Abdul Kadir Nalawala

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#### Education

## • Sarvajanik College of Engineering and Technology

Bachelor of Technology in Computer Engineering

August 2021 - May 2025 Surat, India

- CGPA: 9.08 (till  $7^{th}$  semester)

## Experience

• Vertexco Lab

May 2024 - July 2024

Generative AI - Intern

- Developed a **Python package** leveraging **Selenium WebDriver** to interact with the ChatGPT web interface.
- Integrated official **OpenAI Python library** for comprehensive ChatGPT interaction capabilities.

### **Projects**

• Digital Smile Design

Generative AI — Deep Learning, PyTorch, Diffusers, Fooocus

- Developed a novel smile redesign system utilizing the **Stable Diffusion XL** model from Hugging Face
- Experimented with hyperparameters such as guidance scales and prompt strength for state of the art image
- Constructed a user-friendly web interface using Gradio and Fooocus.
- Bishõgrad 🗘

Python Package, Machine Learning, Open Source

- Built a custom **Autograd engine** for Machine learning tasks.
- Implemented core auto-differentiation functionality, including forward and backward passes, enabling efficient gradient computation for various mathematical operations.
- Incorporated advanced mathematical functions such as tanh, ReLU, and exponential, expanding the engine's capabilities for complex neural network architectures.
- Code Base Analyzer 🗘

Python, GitHub OAuth, API

- Designed a **CLI tool** to analyze any GitHub repository using **ChatGPT LLM** for code improvements, bug fixes, and more.
- Integrated **GitHub API** to seamlessly fetch and download repository files.
- Automated the process of downloading, analyzing code files across multiple programming languages and generating improvement suggestions.

#### Achievements

- Semi-finalist in the 13<sup>th</sup> edition of the CSI-InApp International Student Project Awards project competition with the Digital Smile Design project, recognized for innovative use of Generative AI in the field of dental aesthetics.
- Competitive Programming: Specialist(Max. 1432) at <u>CodeForces</u>, 4\*(Max. 1852) at <u>CodeChef</u>
- OpenSource Contributor in Hacktoberfest-2023
- Certified in **Supervised Machine learning** (Coursera)

#### Technical Skills

- Computer Science Fundamentals: Data Structures and Algorithms, Database Management Systems, Computer Networks, Operating Systems, Compiler Design.
- Languages: Python, C, C++, Java
- Frameworks/Libraries: NumPy, Pandas, PyTorch, Transformers
- Additional Developer Tools: Git, GitHub, Visual Studio Code, HuggingFace, Google Colab, uv.

#### Positions of Responsibility

• Technical Lead Google Developer Student Clubs, SCET July 2023 - June 2024

 $\bullet$  Leader Internet of Things Club, SCET Aug. 2023 - May 2024

Co-Leader CO Smriti Magazine, SCET Aug. 2022 - Aug. 2023