

Rahul Maligi

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Education

University of Texas at Austin – Bachelor's in Computer Science (B.S)	GPA: 3.91	May 2024
<ul style="list-style-type: none">• Data Structures & Algorithms• Discrete Mathematics• Computer Organization & Architecture• Autonomous Intelligent Robotics		

Skills & Qualifications

- Windows, macOS, ChromeOS, and Linux Operating Systems
- Microsoft Office and Google Docs Suite
- **Java (6 years), C++ (5 years), Python (4 years)**
- **SQL (3 years), JavaScript (3 years), HTML (3 years), C# (1 Year)**
- Visual Studio, Eclipse, MS SQL Server, Git/GitHub,
- MEAN/MERN Stack, Flutter, Firebase, Flask, Django, MySQL, Blazor, Microsoft .NET, Microsoft Azure
- Tensorflow, Keras, PyTorch, scikit-learn, OpenCV, ROS

Work Experience

Autonomous Intelligent Robotics Program	January 2022 — Present
<i>Robotics Researcher</i>	

- Programmed a **Keras facial recognition** system with ROS to allow the robot to identify individuals
- Developed **monocular depth estimation** model using TensorFlow, OpenCV, and Pandas
- Invented **navigation algorithm** to ensure robot successfully leads individual from source to destination

Root Translation	January 2022 — Present
<i>Full Stack Engineer</i>	

- Engineered a **custom translator** using Microsoft Azure Cognitive Services from scratch using **C# and .NET**
- **Improved accuracy** of translations for medical terms by **20%** to prevent misinterpretation of medical procedure
- Designed and developed front-end of translation app with **Blazor framework**

Acmetek Global Solutions	June 2020 — August 2021
<i>Artificial Intelligence (AI) Intern</i>	

- Developed **chat-bots** using chatter-bot and Python to improve company-customer interaction by **33%**
- Implemented **predictive analysis algorithms** using scikit-learn to estimate sales and costs
- Deployed **full-stack applications** to Azure after connecting front-end and databases with Flask and MySQL

University of Texas at Dallas	September 2019 — September 2021
<i>Artificial Intelligence (AI) Researcher</i>	

- Created **original reinforcement learning algorithms** in Python and Java
- Programmed **bots** to play games such as chess, tic-tac-toe, Stormbound, etc. with only **2%** loss rate
- Researched **deep neural networks** and various implementations for future projects

TECHROVA Enrichment Club	June 2020 — September 2021
<i>Lead Professional Website Developer</i>	

- techrova.org
- Engineered **front end and back end** of website using JavaScript, HTML, and Transaction APIs
- Improved **web traffic** through SEO, social media presence, and connections with companies by **50%**

Projects

Robot Learning & Research
<ul style="list-style-type: none">• Trained facial detection model using MTCNN and facial identification embeddings using resnet50 model• Implemented depth perception using RGB masks with U-Net model, triplet loss, and 3D point visualization• Combined facial recognition and depth perception with ROS for robot to utilize simple navigation algorithms

Chat-Bot & Sales Analyzer
<ul style="list-style-type: none">• Assembled a chatbot as an AI intern for Acmetek using Python, HTML, JavaScript, and SQL.• Built from scratch and used to help customers with company products.• Implemented predictive analysis algorithm with AI using data gathered from previous sales and chatbot to analyze trends and propose a marketing action that will yield the highest income.

Stormbound & AI Research
<ul style="list-style-type: none">• Recreated popular game, Stormbound, with Dr. Ruozzi using Python.• Researched reinforcement learning to develop original deep learning algorithms and neural networks• Programmed original AI bots using Python, using TensorFlow, Keras, ROCm, and other tools.