Gemmechu Mohammed Hassena

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LINKS

Github, linkedin, Twitter, Website

PROFILE

A motivated individual with a curious mindset continuously improves himself to contribute to the advancement of science. He enjoys dealing with abstract problems and finding solutions. His research interest are in computer vision, graphics, and Machine learning.

RESEARCH AND WORK EXPERIENCE

Oct 2021 — Present

Research Intern, INRIA - Ecole Polytechnique
Paris

Worked on 3D computer vision research projects advised by **Maks Ovsjanikov**

- Pointcloud denoising more
  - Trained a Pointcloud denoising model using PCPNet architecture, for each vertices the model predict Laplacian weights of K-Nearest Neighbor.

May 2020 — Jul 2021

Research Intern, University of Michigan
Ann Arbor - Remote

Worked on computer vision research projects advised by **David Fouhey**

- Quantifying Bird Skeletons more
  - Annotated and trained a segmentation model using Detectron2
  - Workshop poster at CVPR-2021 and a manuscript under review at Methods in Ecology and Evolution
  - Reduced capture time of measuring skeletal traits by 15x
- Scene understanding using humans as Ruler more
  - Created a dataset from 500GB youtube videos
  - Trained a model that predicts the depth and ground of a scene from an RGB image
- Collaborated on a project with **Devi Parikh** at Georgia Tech on Expanding Horizons more
  - Look at the output of the model and provide feedback on whether the output is good or bad

Apr 2020 — Present

Co-founder/ Web developer, Eskalate
Menlo Park- Remote

- In collaboration with the Ethiopian Ministry of Health, i worked as a front-end developer on a non-commercial app TrackSym that uses crowd-sourcing to collect and visualize the density of the relevant symptoms by utilizing VueJs framework.

Jul 2021 — Sep 2021

Machine learning Engineer, Elegant AI
Palo Alto - Remote

- Worked on training and benchmarking end to end speech recognition systems for fast food companies. by utilizing frameworks like Silero and speechbrain

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EDUCATION

Sep 2016 — Oct 2021

Software Engineering, Addis Ababa University
Addis Ababa

Graduated with Great Distinction - **3.6 CGPA**

- Relevant coursework: Applied Mathematics I & II, Data Structures and Algorithms, Introduction to Robotics, Object-Oriented Programming I & II, Human-Computer Interaction, Advanced IT Security, Database Administration, Computer Architecture, Big Data Modeling, and Management System

Oct 2019 — Oct 2021

A2SV: Africa to Silicon Valley
Addis Ababa

A2SV upskills high-potential university students connect them with top tech companies, **59%** of students passed **Google** internship interview. A2SV Focuses on Algorithm and data-structure

- I solved >300 algorithms and data-structure problems and mentored 2 junior students.

SKILLS

Ability to Work in a Team	Animation and Film making
Blender 3D	VR/ AR development with Unity

EXTRA-CURRICULAR ACTIVITIES

Nov 2019 — Nov 2020   **President, Inspire student club**   Addis Ababa

Inspire works towards knowledge sharing and building capacity of students link

- Organized Multiple Hackathons and Seminars
- Hosted Jack Dorsey's visit to Addis Ababa University
- Organizing members grew from 10 to 53 students
- Organized the 1st AI in Ethiopia Conference

PROJECTS

Dec 2020 — Oct 2021   **Location Intelligence: Supermarket site selection**   Graduation thesis project

Using nearby location data and demographic data. The AI model predicts the profitability of opening a new supermarket in the preferred location. more

Oct 2019   **Rust detection on wind turbines: Combating climate change**   Individual project

Using drone camera to detect rust on the wing of wind turbines

Apr 2018 — Sep 2018   **Adventure of Rats**   Individual project

A 3D adventure game with Unity game engine and built the character model using 3ds Max

ONLINE COURSES

Oct 2021 — Present   **Shape Analysis by Justin Solomon, MIT**

Jun 2021 — Sep 2021   **EECS 442 - Computer Vision by David Fouhey & Justin Johnson, University of Michigan**

Sep 2019 — Jan 2020   **Deep Learning Specialization by Andrew Ng, Coursera**

HONORS & AWARDS

Nov 2019   **TensorFlow Speaker**   Google Developers: Devfest

- TensorFlow speaker on annual Google developer festival Addis, for 500 participants. more

Oct 2019   **AI in Ethiopia Conference Organizer**   Addis Ababa University

- I managed other student organizers and assisted with stage management. where speakers like Timnit Gebru, Rediet Abebe and Yolanda Gil participated more

Jun 2016   **Ranked 1st in grade 12**   Falcon Academy