

EDUCATION

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|---|--|----------------------------|
| Miami, FL | Florida International University | Sep 2016 – Present |
| <ul style="list-style-type: none"> • <i>PhD in Computer Science. GPA: 3.89</i> | | |
| Abu Dhabi, UAE | Masdar Institute [In Collaboration with MIT, USA] | Sep 2013 – May 2015 |
| <ul style="list-style-type: none"> • M.Sc. in Computing and Information Science, May 2015. GPA: 3.88 | | |
| Asmara, Eritrea | University of Asmara | Sep 2000 – Jun 2004 |
| <ul style="list-style-type: none"> • B.Sc. in Computer Science, July 2005 • Graduate Coursework (Machine Learning Related): Data Mining, Machine learning, Artificial Neural Networks, Image Processing, Computer Vision, Bioinformatics, Software Engineering | | |

EMPLOYMENT

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| Graduate Research Assistant | Florida International University, USA | Sep 2016 – Present |
| <ul style="list-style-type: none"> • Making research on large medical imaging datasets using different deep learning algorithms. • Grading undergraduate students’ assignments and projects; assisting them in their labs | | |
| Research Assistant | Masdar Institute, UAE | Sep 2013 – Aug 2016 |
| <ul style="list-style-type: none"> • Gathered and analyzed high-throughput metagenomic data of microbial communities • Built predictive models for the composition of microbial communities in the marine environment | | |
| Web Developer & Graduate Assistant | College of Health Sciences, Eritrea | Feb 2010 – Aug 2013 |
| <ul style="list-style-type: none"> • Developed college website using Drupal content management system • Assisted in IT support including installation and troubleshooting of various hardware/software | | |
| Software Developer & Lecturer(part-time) | SMAP Institute, Eritrea | Oct 2009 – Aug 2013 |
| <ul style="list-style-type: none"> • Designed and developed several small to medium sized software (e.g., student & staff evaluation systems) • Taught database design, programming, and PC maintenance courses | | |
| Database Administrator | Ministry of Education, Eritrea | Feb 2008 – Jan 2010 |
| <ul style="list-style-type: none"> • Administered on accurately & securely using and maintaining Education Information Management System • Provided support and training for the staff on the usage of the database system. | | |
| IT Support & Lecturer | Higher Colleges, Eritrea | Sep 2004 – Jan 2008 |
| <ul style="list-style-type: none"> • Taught several computer science courses and assisted in IT support at different institutions of the country | | |

TECHNICAL EXPERIENCE (SELECTED PROJECTS)

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| Prediction of survival rate of brain tumor patients (2016 – Present): | |
| Data Size: | - 70GB of MRI Scans (3D images) and 10GB of gene-expression data |
| Techniques/Algorithms: | - Deep neural networks and Random forests |
| Languages/Tools used: | - Python, TensorFlow, Scikit-learn, pydicom, medpy, Ipython Notebook, etc. |
| Prediction of microbial communities’ distribution (2014 – 2016): | |
| Data Size Used | - 30GB of remote sensing & 65GB of genomic data of microbial communities |
| Techniques Used | - Clustering for grouping microbial communities - Non-Linear Regression for predicting the microbial communities’ distribution |
| Machine Learning Algorithms | - Random Forests, Neural Networks, clustering (K-means and hierarchical) |
| Languages/Tools/Packages | - MATLAB, python, Scikit-learn, Pandas, Matplotlib, Ipython Notebooks, etc. |
| Web Scraping and analysis of the job market different job positions (2015): | |
| Data Size: | - Around 10GB of scraped data |
| Languages/Tools/Packages | - Python, BeautifulSoup, Matplotlib, Ipython Notebook, etc. |
| Techniques Used: | - Preprocessing of unstructured data, Text mining and Data Visualization |

MACHINE LEARNING/DEEP LEARNING TECHNIQUES

| Supervised Learning | Unsupervised Learning | Recommendation Systems | Deep Learning |
|---|--|--|--|
| <ul style="list-style-type: none"> - Linear/Logistic Regression - Decision Trees/Random Forests - Support Vector Machine(SVM) - Ensembles (bagging, boosting), etc. | <ul style="list-style-type: none"> - K means clustering - Hierarchical clustering - Principal Components Analysis (PCA) | <ul style="list-style-type: none"> - Content-based filtering technique - Collaborative filtering technique | <ul style="list-style-type: none"> - Fully Connected Neural Networks - Convolutional Neural Networks |

LANGUAGES/TOOLS

- Python; MATLAB; Java; SQL; VB.Net; C#; HTML/CSS; JavaScript
- Ipython Notebook; PyCharm; Eclipse; Visual Studio; Git; Android Studio; Unix and Windows Operating Systems