



Curriculum Vitae

Personal information	
First name-Middle name-last name	Alem Haddush Fitwi
Address	91 Endicott Avet Apartment 3 Johnson City, NY 13790, USA
Telephone(s)	Mobile: +1-607-232-1056
E-mail	ahfitwi@gmail.com / afitwi1@binghamton.edu
Nationality	Ethiopian
Gender	Male
Desired employment / Occupational field	
Data Scientist/Data Analyst/Researcher/Assistant Professor/Lecturer	
Work experience	
Dates	May 25, 2021 to date
Occupation or position held	Research Project Assistant
Main activities and responsibilities	<ul style="list-style-type: none">⇒ Crowd Surveillance Project<ul style="list-style-type: none">→ Developed Algorithm for social distancing determination using a single camera→ Developed Algorithm for the determining area occupied by a crowd using a single camera→ Human Detection Model using modified YOLOv3 (Deep Learning)→ Developed and implemented a unified model for dynamic people detection, social distance calculation, occupied area estimation, determination of number of social distancing violations, crowd density calculation, and alerting.→ The whole project was implemented using Python3→ Link to project: https://github.com/ahfitwi/SDProject2021⇒ Distributed Implementation of DC_OMP_TA<ul style="list-style-type: none">→ Designed and Developed Algorithms for the distributed implementation of the Distributed Collaborative Orthogonal Matching Pursuit Thresholding Algorithm (DC_OMP_TA) .→ A peer-to-peer network was developed for the efficient sharing of object files at steps 3 and 6 of the DC_OMP_TA.→ All the testing and implementation was done through the efficient integration of Python and MATLAB codes.→ Link to the project is not available because I haven't got a permission to share it in the public domain yet.
Name and address of employer	(RF SUNY) Binghamton University, State University of New York 4400 Vestal Pkwy E, PO Box 6000 Binghamton, NY 13902-6000 Phone: 607-777-2873; Fax: 607-777-4822
Type of business or sector	State University
Dates	August 22, 2017 to May 26, 2021
Occupation or position held	Graduate Assistant (Data Analytics & Dash Development using SAS, Oracle DB, MySQL, SQLite, Python, Plotly, Dash, & Machine Learning)
Main activities and responsibilities	<ul style="list-style-type: none">⇒ Programming using Python, MySQL, OracleDB, SQLite, & SAS,⇒ Performing Data Analytics (Data Processing + BI + Reports) and Prediction Analysing (Data Science)⇒ Generating weekly, monthly, & yearly reports (pdf, excel, csv, rtf/word, and graphical formats) of Watson School's SOOT (Student Opinion of Teaching), Admission, & Research Data⇒ Developing Dashboards using Python + Plotly + Dash + SQLite (for BI, Demographic Analysis, Financial Analysis, and Survey Analysis)⇒ Designing and Preparing Surveys using Qualtrics, and Analysis of Responses using Python, R, and SQL
Name and address of employer	Binghamton University, State University of New York 4400 Vestal Pkwy E, PO Box 6000 Binghamton, NY 13902-6000 Phone: 607-777-2873; Fax: 607-777-4822
Type of business or sector	State University
Dates	October 30, 2014 to August 21, 2017
Occupation or position held	Assistant Professor
Main activities and responsibilities	<ul style="list-style-type: none">⇒ Giving Lectures on Computer Engineering and ICT courses⇒ Conducting Laboratory Experiments


	⇒ Carrying out research works ⇒ Involving in community services and pragmatic ICT & Engineering projects
Name and address of employer	Mekelle University P.O.Box: 231 Mekelle, Tigray, Ethiopia
Type of business or sector	Governmental Higher Institute
Dates	October 05, 2012 to October 29, 2015
Occupation or position held	Director of Information & Communication Technology
Main activities and responsibilities	⇒ Providing leadership and management to the Information & Communications Technology (ICT) directorate. ⇒ Ensuring that ICT provides, operates and maintains the ICT infrastructure, systems and solutions to meet the needs of the administrative, educational, and research programs of the University ⇒ Specification Preparation, Designing and implementing the state-of-the-art datacenter and other ICT infrastructures (Electrical, IT, IP, Surveillance, & Environmental Control Systems). ⇒ Establishing proper ICT governance through an ICT Policy for the university, planning of ICT projects, managing the portfolio of solutions, systems and infrastructure, and instituting a Service Management approach to the services and solutions that the ICT delivers to the university community ⇒ Keeping up with the ever changing Information and Communication Technology, especially identifying new tools and technologies that will move the University's Education and Research responsibilities forward
Name and address of employer	Mekelle University P.O.Box: 231 Mekelle, Tigray, Ethiopia
Type of business or sector	Governmental Higher Institute
Dates	July 01, 2013 to December 15, 2015
Occupation or position held	SCADA (Supervisory Control And Data Acquisition) Expert/Engineer
Main activities and responsibilities	⇒ Design Review & verification of Supervisory Control And Data Acquisition Systems (SCADA software, Supervisory Master station devices, process control devices, communication systems, transmission media (fibre line works) & interconnection interfaces, Embedded systems, physical and logical SCADA networking and Addressing plan) and Electrical Systems (Wind Turbine Generator Electrical Systems, Substation, 33kV & 230kV Transmission Lines and Towers) ⇒ Supervision of the installation works of SCADA systems, Networking and Electrical Wind Turbine Generator (WTG) Systems. ⇒ Supervision of Commissioning and testing of the SCADA systems, Networking and Electrical Wind Turbine Generator (WTG) Systems. ⇒ Reporting and Preparation of SCADA & Electrical works project documents on a daily, weekly, monthly, quarterly, semi-annually, and annually basis.
Name and address of employer	ASTU-MU JV Consultant, ADAMA-II Wind Farm Project (153MW) Client: Ethiopian Electric Power Corporation Contractor: HydroChina-CGCOC JV Adama, Oromia, Ethiopia
Type of business or sector	Consultant
Dates	September 01, 2012 to June, 2014
Occupation or position held	Electrical Engineer (& SCADA Expert)
Main activities and responsibilities	Dedicatedly took part in the erection, inspection, installation, testing & commissioning of the following Electromechanical works ⇒ Wind Turbine (Vergnet GEV HP Turbines & Alstom ECO 74 Turbines) ⇒ SCADA Systems (Both Vergnet & Alstom SCADA Systems, MySQL Database, Software, and networking) ⇒ Telecommunication Systems ⇒ Protection & Control Systems ⇒ Interlocking Systems ⇒ HVSS (High Voltage Substation) ⇒ 33kV Overhead & underground lines
Name and address of employer	MU Consultant Team, Ashegoda Wind Farm Project (120MW) Client: Ethiopian Electric Power Corporation Contractor: Vergnet & Alstom (French) Mekelle, Tigray, Ethiopia
Type of business or sector	Consultant
Dates	September 21, 2011 to October 05, 2012
Occupation or position held	Program Coordinator of Electrical & Computer Engineering Department

responsibilities	Main activities and responsibilities	<ul style="list-style-type: none"> ⇒ Directing, planning and administering the teaching-learning, research, community and support services of the department ⇒ Managing the overall administrative and financial activities of the department with a mandate to solicit funding for the department. ⇒ Evaluating and monitoring the quality of the teaching-learning, research and community service activities ⇒ Maintaining the balance between the teaching-learning, research and community service assignments of academic staff in consultation with respective course/research chair leaders
	Name and address of employer	Mekelle University P.O.Box: 231 Mekelle, Tigray, Ethiopia
sector	Type of business or sector	Governmental Higher Institute
	Dates	January 14, 2011 to September 21, 2011
	Occupation or position held	Chair of the Computer Engineering Chair (Stream)
responsibilities	Main activities and responsibilities	<ul style="list-style-type: none"> ⇒ Directing, and planning the teaching-learning, research, community and support services of the chair ⇒ Evaluating and monitoring the quality of the teaching-learning, research and community service activities of the chair ⇒ Maintaining the balance between the teaching-learning, research and community service assignments of academic staff in consultation with the department program coordinator
	Name and address of employer	Mekelle University P.O.Box: 231 Mekelle, Tigray, Ethiopia
sector	Type of business or sector	Governmental Higher Institute
	Dates	July 18, 2010 to October 29, 2014
	Occupation or position held	Lecturer of Computer Engineering
	Main activities and responsibilities	<ul style="list-style-type: none"> ⇒ Giving Lectures on Computer Engineering and ICT courses ⇒ Conducting Laboratory Experiments ⇒ Carrying out researches and Preparing Teaching materials ⇒ Involving in community services
	Name and address of employer	Mekelle University P.O.Box: 231 Mekelle, Tigray, Ethiopia
	Type of business or sector	Governmental Higher Institute
	Dates	September 02, 2007 to July 18, 2010
	Occupation or position held	Assistant Lecturer of Electrical & Computer Engineering
	Main activities and responsibilities	<ul style="list-style-type: none"> ⇒ Giving Lectures on Electrical & Computer Engineering courses ⇒ Conducting Laboratory Experiments ⇒ Assisting researches ⇒ Involving in community services
	Name and address of employer	Mekelle University P.O.Box: 231 Mekelle, Tigray, Ethiopia
	Type of business or sector	Governmental Higher Institute
	Dates	September 02, 2006 to September 02, 2007
	Occupation or position held	Graduate Assistant II
	Main activities and responsibilities	<ul style="list-style-type: none"> ⇒ Giving Lectures on Electrical & Computer Engineering courses ⇒ Conducting Laboratory Experiments
	Name and address of employer	Mekelle University P.O.Box: 231 Mekelle, Tigray, Ethiopia
	Type of business or sector	Governmental Higher Institute
	Dates	August 15, 2006 to November 16, 2006
	Occupation or position held	Engineer-I
	Main activities and responsibilities	<ul style="list-style-type: none"> ⇒ Design, Installation, and supervision of Electromechanical Erection works ⇒ Planning and carrying out of Industrial Maintenance for Electromechanical Systems ⇒ Redesigning, maintaining and programming of the communication systems
	Name and address of employer	Mesfin Industrial Engineering P.O.Box: 508

	Mekelle, Tigray, Ethiopia																																									
Type of business or sector	Private Engineering & Manufacturing Company																																									
Education and training																																										
Dates	August 23, 2017 to Date																																									
Title of Qualification Awarded	Ph.D. (Defended on November 17, 2021 and completed the required forms to graduate on December 23, 2021)																																									
Principal Subjects/Occupational Skills covered	Electrical and Computer Engineering (Computer Engineering: Privacy, Mechanical Surveillance, Machine/Deep Learning, Blockchain, Security, & Edge Computing)																																									
Name of Organization Providing Education & Training	State University of New York @ Binghamton Binghamton, New York, USA																																									
Dates	July 19, 2014 to August 10, 2014																																									
Title of qualification awarded	Huawei IP & IT Product Training Certificate																																									
Principal subjects/occupational skills covered	Huawei IP products (Network Switches, Firewalls, and Terminal Security Management) and IT products (Storage Arrays, Virtual Tape Libraries, Blade Servers, Virtualization & Management)																																									
Name of organization providing education & training	Huawei University Shenzhen, China																																									
Dates	September 2008- September 2010 G.C																																									
Title of Qualification Awarded	M.Sc. (2 years)																																									
Principal Subjects/Occupational Skills covered	Computer Engineering (Research Area: Computer & Network Security, & Cryptography)																																									
Name of Organization Providing Education & Training	Faculty of Technology, Addis Ababa University Addis Ababa, Ethiopia																																									
Dates	September 2001- July 2006 G.C																																									
Title of Qualification Awarded	B.Sc. (Thesis: Cryptography for Image Communication)																																									
Principal Subjects/Occupational Skills covered	Electrical & Computer Engineering																																									
Name of Organization Providing Education & Training	Bahir Dar University, Faculty of Engineering, Bahir Dar, Amhara, Ethiopia																																									
Dates	September 1997- July 2000 G.C																																									
Title of Qualification Awarded	High School Diploma and ESLCE certificate (Score 4.0/4.0)																																									
Principal Subjects/Occupational Skills covered	High School Natural Science 9 th to 12 th grades.																																									
Name of Organization Providing Education & Training	Kallamino Special High School (9-12: A Boarding School where only top-seed students join) Mekelle, Tigray, Ethiopia																																									
Dates	September 1995- July 1997 G.C																																									
Title of Qualification Awarded	8 th Grade National Examination Certificate (Score Percentile=100%)																																									
Principal Subjects/Occupational Skills covered	Junior Secondary School (7 th & 8 th Grades).																																									
Name of Organization Providing Education & Training	Maida Agame Junior Secondary School (7-8) Adigrat, Tigray, Ethiopia																																									
Dates	September, 1989-June, 1995G.C.																																									
Title of Qualification Awarded	6 th Grade National Examination Certificate (percentile=99%)																																									
Principal Subjects/Occupational Skills covered	Elementary School (1 st to 6 th Grades).																																									
Name of Organization Providing Education & Training	Beati-Kanda'ero Elementary School (1-6) Adigrat, Tigray, Ethiopia																																									
Personal skills and competences																																										
Mother Tongue	Tigrigna																																									
Other Languages	Amharic, English, & French (I was good at French but I have never used it for more than a decade, it evaporated)																																									
Self-assessment	<table border="1"> <thead> <tr> <th rowspan="2">level</th> <th colspan="2">Understanding</th> <th colspan="2">Speaking</th> <th colspan="2">Writing</th> </tr> <tr> <th>Listening</th> <th>Reading</th> <th>Spoken interaction</th> <th>Spoken production</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>European</td> <td>Excellent</td> <td>Excellent</td> <td>Excellent</td> <td>Excellent</td> <td>Excellent</td> <td>Excellent</td> </tr> <tr> <td>Amharic</td> <td>Excellent</td> <td>Excellent</td> <td>Excellent</td> <td>Excellent</td> <td>Excellent</td> <td>Excellent</td> </tr> <tr> <td>English</td> <td>Little</td> <td>Good</td> <td>Little</td> <td>Little</td> <td>Little</td> <td>Little</td> </tr> <tr> <td>French</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	level	Understanding		Speaking		Writing		Listening	Reading	Spoken interaction	Spoken production			European	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Amharic	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	English	Little	Good	Little	Little	Little	Little	French						
level	Understanding		Speaking		Writing																																					
	Listening	Reading	Spoken interaction	Spoken production																																						
European	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent																																				
Amharic	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent																																				
English	Little	Good	Little	Little	Little	Little																																				
French																																										
Social skills and competences	⇒ Very good skill of working with peoples of different cultures and ages																																									
Organizational skills and competences	⇒ Good at organizing people and events whilst working in the various positions (Chair, Head and Director)																																									

Computer Hardware/Programming skills & competencies	<ul style="list-style-type: none"> ⇒ Proficient in basic & advanced Computer Skills (MAC-OS, Windows, Unix/Ubuntu, Word, Excel, PowerPoint, etc.) ⇒ Good in PC maintenance and Computer Networking ⇒ Excellent in the following Programming Languages (I still use Python and SAS programming Languages, MySQL DBMS): <ul style="list-style-type: none"> ○ Excellent in SQL, & SQLite (in constant use) ○ Excellent in R Programming (in constant use) ○ Excellent in Python (Computer Networking, Data Analysis, Deep Learning, Machine Learning, & Prediction: I use it almost everyday) ○ SAS (For Data Analysis and Insightful Report Generation, currently in use) ○ Java Programming (Extensively used for Computer Networking and Security Applications, still can program in Java) ○ C programming (the first programming I learnt long ago, I used it until 2010) ○ C++ programming (for most of my B.Sc Degree course projects and Thesis Works, I used it until 2010) ○ VHDL (for research and projects, last use was 2012) ○ Assembly language (for teaching and industry, last use was in 2018) ○ Matlab programming (for research and teaching, still using it for a project implementation this term) ○ PHP along with MySQL DBMS (Web application development for companies, last use of PHP was in 2015) ⇒ Very Good in MySQL, MS Access, PostgreSQL, and Oracle DBMS (in regular use) ⇒ Very Good in NoSQL (MongoDB) ⇒ Good and trained in PLC Ladder Programming (for industry, last use was in 2015) ⇒ Excellent in SCADA package and Experienced in SCADA Systems installation (last use in 2016) ⇒ Excellent in Autocad (Last use in 2020 summer for Datacenter Layout Design) ⇒ Excellent in Visio (Currently in use for any diagram/flowchart creation or layout design) ⇒ Trained & certified in CCNA, Linux System Administration, and Microsoft Server Administration ⇒ Practically Trained & certified in the Design, Installation, Testing, & Troubleshooting of Datacenter Electrical Power Supply & Distribution Systems ⇒ Practically Trained & certified in the Design, Installation, Testing, & Troubleshooting of Datacenter Environmental Control Systems like HVAC or Air Conditioning Systems, Fire Alarm System, & Fire Suppression System ⇒ Practically Trained & certified in the Design, Installation, Testing, & Troubleshooting of Datacenter Electrical Racking Systems ⇒ Practically Trained & certified in the Design, Installation, Testing, & Troubleshooting of Datacenter Facilities Management Systems including SACADA System, Biometric Access Control System, & CCTV/VSS ⇒ HCNA Security Certified
Research and Publication	<p>Research Areas:</p> <ul style="list-style-type: none"> ⇒ Data Privacy and Security ⇒ Machine/Deep Learning ⇒ Edge Computing ⇒ Video Surveillance ⇒ Smart Grid ⇒ Data Analytics <p>Publications:</p> <div style="border: 1px dotted black; padding: 5px; margin-bottom: 10px;"> <p>Journal Publications</p> <ol style="list-style-type: none"> 1) A. Fitwi, Y. Chen, and S. Zhu, "Enforcing Privacy-Preservation on Edge Cameras using Lightweight Video Frame Scrambling," the IEEE Trans. on Services Computing, R2 submitted on Nov. 01, 2021, under review. 2) A. Fitwi, Y. Chen, and S. Zhu, "Lightweight Frame Scrambling Mechanisms for End-to-End Privacy in Edge Smart Surveillance," the IET Smart Cities, Special Issue on Smart Computing for Smart Cities, November 2021. 3) A. Fitwi, Y. Chen, H. Sun, and R. Harrod, "Estimating Interpersonal Distance and Crowd Density with a Single Edge Camera," the MDPI Computers, October 2021. 4) A. Fitwi, Y. Chen, S. Zhu, E. Blasch, and G. Chen, "Privacy-Preserving Surveillance as an Edge Service based on Lightweight Video Protection Schemes using Face De-Identification and Window Masking," MDPI Electronics, Special Issue on 10th Anniversary of Electronics: Recent Advances in Computer Science and Engineering, 2021, Vol. 10, No. 3, 236. 5) A. Fitwi, M. Yuan, S. Y. Nikouei, and Y. Chen, "Minor Privacy Protection by Real-Time Children Identification and Face Scrambling at the Edge," the EAI Endorsed Transactions on Security and Safety, May 2020. 6) R. Xu, S. Y. Nikouei, D. Nagothu, A. Fitwi, and Y. Chen. "Blendsps: A blockchainenabled decentralized smart public safety system," Smart Cities, 3(3):928-951, 2020. 7) Fitwi, A. H. and Noh, S., "Performance analysis of chaotic encryption using a shared image as a key," Zede Journal 28, 17-29 (2011). </div> <div style="border: 1px dotted black; padding: 5px;"> <p>Conference Paper Publications</p> <ol style="list-style-type: none"> 8) A. Fitwi, Y. Chen, and S. Zhu, "PriSE: Slenderized Privacy-Preserving Surveillance as an Edge Service," the 6th IEEE International Conference on Collaboration and Internet Computing (IEEE CIC 2020), Virtual Conference, Dec. 1 - 3, 2020. [Best Paper Award]. 9) A. Fitwi and Y. Chen, "Privacy-Preserving Selective Video Surveillance," the 29th International Conference on Computer Communications and Networks (ICCCN 2020), Honolulu, Hawaii, August 3 – 6, 2020. </div>

	<p>10) M. Yuan, S. Nikouei, A. Fitwi, Y. Chen, and Y. Dong, "Minor Privacy Protection Through Real-Time Video Processing at the Edge," the 2nd International Workshop on Smart City Communication and Networking (SmartCityCom2020), in conjunction with the 29th International Conference on Computer Communications and Networks (ICCCN 2020), Honolulu, Hawaii, August 3 – 6, 2020</p> <p>11) A. Fitwi, D. Nagothu, Y. Chen, and E. Blasch, "A Distributed Agent based Framework for a Constellation of Drones in a Military Operation," the 2019 Winter Simulation Conference, National Harbor, MD, USA, December 8 – 11, 2019.</p> <p>12) A. Fitwi, Y. Chen, and S. Zhu, "No Peeking through My Windows: Conserving Privacy in Personal Drones," the 5th IEEE International Smart Cities Conference (ISC2 2019), Casablanca, Morocco, October 14 - 17, 2019.</p> <p>13) A. Fitwi, Y. Chen, and S. Zhu, "A Lightweight Blockchain-based Privacy Protection for Smart Surveillance at the Edge," Position Paper, the International Workshop on Lightweight Blockchain for Edge Intelligence and Security (LightChain), held in conjunction with the 2nd IEEE International Conference on Blockchain (Blockchain-2019), Atlanta, USA, July 14 - 17, 2019.</p> <p>14) A. Fitwi and Y. Chen, "Privacy-Preserving Selective Video Surveillance," the 29th International Conference on Computer Communications and Networks (ICCCN 2020), Honolulu, Hawaii, August 3 – 6, 2020.</p> <p>15) A. Fitwi, Y. Chen, and N. Zhou, "An Agent Administrator based Security Mechanism for Distributed Sensors and Drones for Smart Grid Monitoring," the SPIE Defense and Commercial Sensing 2019 (DCS), Conference on Signal Processing, Sensor/Information Fusion, and Target Recognition, Baltimore, MD, USA, April 14-18, 2019.</p> <p>16) A. Fitwi, D. Nagothu, Y. Chen, and E. Blasch, "A Distributed Agent based Framework for a Constellation of Drones in a Military Operation," the 2019 Winter Simulation Conference, National Harbor, MD, USA, December 8 – 11, 2019.</p> <p>17) Mali, D. and Fitwi, A. "Home monitoring system using wireless sensors network via the internet," TECHNIA Journal 7(1) (2014).</p>
	<p>Workshop Paper Publications</p> <p>18) A. Fitwi and Y. Chen, "Secure and Privacy-Preserving Stored Surveillance Video Sharing atop Permissioned Blockchain," the 4th International Workshop on Blockchain Enabled Sustainable Smart Cities (BLESS), in conjunction with 30th International Conference on Computer Communications and Networks (ICCCN 2021), Athens, Greece, July 19 – 22, 2021.</p> <p>Book Chapters</p> <p>19) A. Fitwi, Z. Yang, Y. Chen, and X. Lin, "Smart grids enabled by edge computing," Book: "Edge Computing: Models, technologies and applications", p. 381 –408 (28), publisher: Institution of Engineering and Technology (IET) in Edge Computing: Models, technologies and applications, 2020.</p>
Major Professional Project Achievements	<p>⇒ Managed to build the state of the art Datacenter and ICT infrastructure in Mekelle University (with full involvement starting from the business requirement analysis, Specification preparation, Design preparation, installation, supervision, testing, to commissioning)</p> <p>⇒ Played good managerial and consulting roles in the Mekelle University Automation works including Student Information Management System, Procurement Management System, Research Management System, Financial Management System, Property Management System, Human Resource Management System, & Fleet Management System developed by a hired company, Winners Engineering PLC.</p> <p>⇒ <i>Managed the Team that had been developing and deploying Student Information Management System software in 50 selected Tigray High Schools in collaboration with the Tigray Bureau of Education.</i></p> <p>⇒ <i>Successful involvement as Electrical Engineer in the Construction, Installation, testing, and commission of the 120MW power plant of "Ashegoda Wind Farm Project"</i></p> <p>⇒ <i>Member of the Consultant Team(As Electrical Engineer/SCADA Engineer) of the 153MW Power Plant project of Adama-II Wind Farm Project</i></p> <p>⇒ <i>Managed to develop and deploy a very good Quality Control, Material Planning, & Warehouse Management Software for Addis Pharmaceutical Factory S.C.</i></p> <p>⇒ <i>Developed SAS Based Software for analyzing SOOT and Research Data of Watson School and generating Reports.</i></p> <p>⇒ <i>Developed standard Dashboard using Python, Plotly, Dash, and SQLite for Watson Continuing Education Program.</i></p>
Additional information	<p>Professional Society or Charitable Organizations Membership</p> <p>⇒ Global Society of Tigran Scholars (GSTS) => Professional Society (Member of the Information and Communication Technology)</p> <p>⇒ Student Ambassador @ Binghamton University 2019, 2020()</p> <p>⇒ Global Society of Tigran Scholars (GSTS) => Professional Society (Ex-Member of the Board of Directors, & Ex-Head of the Community Empowerment Directorate)</p> <p>⇒ Kallamino Alumni Association => Charitable Organization (Ex-Vice President and President)</p> <p>Academic Projects:</p> <p>⇒ Optimizing Multiclass classification using Convex Optimization (Ph.D. course project)</p>

	<ul style="list-style-type: none"> ⇒ Eye-Disease Detection using Deep Learning & Neural Networks (Ph.D. course project) ⇒ Advanced String manipulations using Regular expressions for Network Security Analysis ⇒ Implementation and Test of an 8051 microcontroller on Xilinx Spartan-3 XC3S200 FPGA (M.Sc. Independent project) ⇒ B.Sc. thesis and Final year project on: "Cryptography for Image Communication" ⇒ B.Sc. Mini Project on: "Design of smart Encoding and Decoding of Voice Communication" (VOCODER) ⇒ Face recognition using ANN (M.Sc. project) ⇒ Software (GUI) for RSA and Elliptical cryptography ⇒ Software for DES, AES and Secure Hashing
Online Courses Learned at my own pace	<ul style="list-style-type: none"> ⇒ The Ultimate 2022 Fullstack Web Development Bootcamp (Udemy) ⇒ Python for Data Science and Machine Learning Bootcamp (Udemy) ⇒ The Complete Oracle SQL Certification Course (Udemy) ⇒ SAS Programming BASE certification course for SAS Beginners (Udemy) ⇒ Complete SAS Bootcamp (Udemy) ⇒ Certified Ethical Hacker (CEHv3.0) Training Course for 2019 (Udemy) ⇒ Hands-on Penetration Testing Labs 2.0 (Udemy) ⇒ Python for Computer Vision with OpenCV & Deep Learning (Udemy) ⇒ Learn Computer Vision with OpenCV Library using Python (Udemy) ⇒ Ethereum and Solidity: The complete Developer's Guide (Udemy) ⇒ The Cryptocurrency Bible Bitcoin, Ethereum, Altcoin, ... (Udemy) ⇒ Complete Guide to TensorFlow for Deep Learning with Python (Udemy) ⇒ Python 3 Network Programming-Build 5 Network Applications (Udemy) ⇒ Python 2 Network Programming-Build 12 Multi-Vendor Tools (Udemy) ⇒ Python 2 Network Programming-Build 20 Basic Security Tools (Udemy) ⇒ Deep Learning A-Z : Hands-on Artificial Neural Networks (Udemy) ⇒ Complete Python Bootcamp: Go from zero to hero in Python Three (Udemy)
References: <ol style="list-style-type: none"> 1) Dr. Yu Chen, Associate Professor in ECE Dept, Watson School, BU, yuchen@binghamton.edu ; My Academic Adviser 2) Dr.Peter J. Partell, Associate Dean for Academic & Administration of Watson School, partell@binghamton.edu; My work Supervisor 3) Dr. Krishnaswami Srihari, Dean of Watson School & Distinguished Professor, email: srihari@binghamton.edu; <p style="text-align: center;"><i>With regards</i></p>  <p style="text-align: center;">Alem Haddush Fitwi Ph.D. Student & Research Project Assistant @ RF SUNY BU Department of Electrical & Computer Engineering Watson School of Applied Science & Engineering, State University of New York @ Binghamton (Life Motto: "With Patience, we can dissect an ant and reach its heart")</p>	

NB: For every work experience claimed in this CV, there is a corresponding corroborating original testimony letter from the concerned office. If need be, the original testimony letters could be shown or provided in copies to your good office.