

Elsayed Hemayed

Profile

- More than 25 years' experience of research and teaching in the area of computer science and engineering with focus in Image Processing, Computer Vision, Computer Graphics, Software and Data Engineering.
- More than 60 publications in well-known scientific conferences and journals.
- Graduated more than 35 Master and PhD students.
- More than 15 years' experience in information systems development (designing information models, reports and data mining modules) and full-cycle software product development.
- Excellent communication skills. Articulate with professional and educated manner. Listen well to others. Work with diverse groups as consultant, supervisor, coach, team builder, or team member.
- Strong analytical, problem solving and managerial skills.
- Big Data Specialist with IBM BigInsights V2.1

Experience

March 2015 - Present Faculty of Engineering, Cairo University, Egypt
Professor, Computer Engineering Dept

Sept 2009 – Jan 2015 Faculty of Engineering, Cairo University, Egypt
Associate Professor, Computer Engineering Dept

June 2007 – August 2009 Faculty of Engineering, Cairo University, Egypt
Assistant Professor, Computer Engineering Dept

- Teach Big Data Analytics course. (Since 2015)
- Teach undergraduate courses including image processing and computer vision, Software Engineering and Computers for Engineers. (Since 2007)
- Teach undergraduate courses including computer graphics and data mining. (2007-2011)
- Teach the computer vision graduate course for pre-master students (2007-2011)
- Serve in department and college committee and technical team including library committee, Quality Assurance committee, IT-related tenders' technical evaluation team, and graduation project evaluation team.
- Provide IT consultancy for the community.
- Represent the computer engineering department in the college quality assurance unit (2010 – 2014).
- Supervise students in their graduation projects.
- Supervise master and PhD students.
- Act as the academic advisor for the 3rd grade students
- Conducting research in the area of Image Processing, Computer Vision, Computer Graphics, Software and Data Engineering.

September 2012 – Present American University in Cairo, Egypt
Adjunct Faculty Member, Smart System Master Program

- Teach the image analysis and computer vision graduate course in the smart systems master program.

September 2010 – Present Information Technology Institute, Egypt

Part Time Instructor

- Teach the data mining course in ITI Business Intelligence program.

September 2004 – May 2007 CIT, UAE University, Al-Ain, UAE

Assistant Professor, Software Engineering

- Teach undergraduate courses including software construction, operating systems, software design, software engineering, software design and testing, digital hardware fundamentals.
- Serve in several CIT committee including text books committee, senior exhibition, internship, social, web portal, and programming contest committee.
- Supervise several students in their internship training.
- Represent the university research affairs in the technical team for the Gulf research data portal.
- Act as the primary investigator in a 500,000 AED IT consultancy contract for a government association.
- Conducting research in the area of Computer Vision and Performance management.

March 2004 – August 2004 Trendium, Inc. Fort Lauderdale, FL, USA

VP of Technical Services and Solution Development

Member of the Corporate Executive Team

- Lead the Technical Services and Solution Development organization to architect and implement customer and market solutions (30 members).
- Member of the executive team in driving the company to be ready for TL9000 certification
- Member of the strategic committee to define the strategic directions of Trendium.
- Under my leadership, the organization completed successfully many of the architecture and deployment of customer solutions achieving a complete customer satisfaction and generating \$7 millions revenue with net profit of 30%.
- I was awarded The Year 2005 Trendium Pioneer in recognition of the contribution to the architecture of Trendium Products.

June 2003–Feb 2004 Trendium, Inc. Fort Lauderdale, FL, USA

Director of American Technical Services

- Architect and implement customer solutions.
- Technical lead of Trendium Strategic accounts.
- Research and configure Trendium Product (ServicePATH) to collect inventory and performance data from different vendors' equipments (Cisco, Alcatel, Lucent, Adtran, Redback) using different collection mechanism (TL1, SNMP, Flat File).
- Develop and deliver training classes of ServicePATH solution for the customer.
- Lead American Technical Services team (12 senior architects and developers).
- For my outstanding performance, I was awarded two performance awards and was promoted to lead the technical services and solution development organization.

Jan 2002–May 2003 Trendium, Inc. Fort Lauderdale, FL, USA

Director of Software Development

- Responsible for 18 engineers with two managers to architect, develop and productize the total
- Support the pre-sales (RFP responses, Proofs of Concept and demos).
- Initiated and lead the effort of architecting and packaging for vertical customer

solutions.

- Support the maintenance of Service PATH.
- Architect and configure a solution for ServicePATH to close the largest strategic account of Trendium of \$12.0 Million. The winning of this account drove Trendium decision to start the Technical Services group as independent group from engineering, which was started, and led by myself.
- For my outstanding performance, I was awarded two performance awards.

July 2000–Dec 2001 Trendium, Inc. Fort Lauderdale, FL, USA

Engineering Manager

- Co-architect ServicePATH 2.0, architect and design the Data Collection of ServicePATH to support different collection mechanism (TL1, SNMP, Flat File, SQL, and CORBA).
- Architect the high availability solution of the data collection.
- Manage the development of the server components of ServicePATH.
- Manage the development of more than 20 device adapters from different vendors (Cisco, Alcatel, Lucent, Nortel, Ciena, Redback).
- Co-design the SDK of the device adapters to support Flat Files, SQL and CORBA collection protocols.
- Co-deploy and manage the delivery of ServicePATH to Trendium's first large Customers (\$4.0 Million Solutions).
- Develop and maintain the preload data for ServicePATH configuration.
- Design several Proofs of Concept and demos for pre-sale support.
- Lead the data collection team (10 developers).
- For my outstanding performance, I was awarded several performance awards.

Dec 1999–June 2000 Trendium, Inc. Fort Lauderdale, FL, USA

Senior Member of Technical Staff

- Develop a topology simulator and data generator to test the performance of ATMView, the first product developed in Trendium.
- Develop device adapters to collect topology and statistics data from Marconi switches and Cisco WAN Manager and feed it to ATMView.
- For my outstanding performance, I was promoted to an engineering manager to lead the data collection group.

July 1999–Nov 1999 EE, University of Louisville, KY, USA

Research Scientist

- Coordinate the CardEye (A Unique 3D Trinocular Active Vision System) Project.
- Conduct research in the area of shape recovery.
- Teach computer vision graduate class.

August 1994–June 1999 EE, University of Louisville, KY, USA

Research Scientist Assistant

- Coordinate and design the overall system of the CardEye project.
- Co-design the overall system of the jaw-modeling project.
- Conduct research in the area of 3D Model Building.
- Conduct joint research in several computer vision areas: camera calibration, sensor planning and surface reconstruction from serial cross sections.
- Co-teach the computer vision class.
- Co-advise master's and undergraduate's students.

- Design/develop a kinematics simulation for a robotic system.
- Develop fractal generation algorithm with friendly GUI.
- Develop several techniques for surface reconstruction from sequence of images: edge_based, active area_based and cooperative stereo.
- Develop a new methodology for fitting a surface to a cloud of data.
- The E-days first place Award from the Speed School of Eng, The Jaw Modeling Project, 1998.
- The E-days first place Award from the Speed School of Eng, The CardEye Project, 1999.

October 1989-July 1994 Faculty of Engineering, Cairo University, Egypt

Teaching Assistant

- Assist in teaching Computer Engineering class for undergraduates.
- Assist the student in the computer lab.
- Supervise the undergraduate students in their graduation projects.
- Teaching C Computer Language.
- Develop a ray-tracing algorithm for realistic image rendering.

Education

1994–1999 EE, University of Louisville Louisville, KY, USA

- Ph.D., Computer Science and Engineering.
- Thesis: A 3D Trinocular Active Vision System for Surface Reconstruction.
- Overall GPA: 3.95.
- The year 2000 Graduate Dean's Citation Award in recognition of excellent achievement as a candidate for an advanced degree.
- The year 2000 John M. Houchens Prize in recognition of excellent doctoral dissertation.

1989-1992 Faculty of Engineering, Cairo University, Egypt

- M.Sc., Computer Engineering.
- Thesis: Analysis of Speed-up Techniques in Ray Tracing Graphics.
- Overall GPA: 3.9.

1984-1989 Faculty of Engineering, Cairo University, Egypt

- B.Sc., Electrical Engineering.
- Graduation rank: 2nd out of 495. Overall GPA: 4.0.
- Academic Outstanding Award for five consecutives years.

1989 – Present

- Attended several courses and workshops in the area of time management, leadership, business planning, project management, and other soft-skills workshops.

Professional Services

- Member of the Council of Information and Communication Technology, Egypt's Academy of Scientific Research and Technology and the coordinator of the big data analytic group 2015/2016.
- Principle Investigator of research project PDP2015.R17.1-Intelligent Video IP Surveillance Integrated Analytics IVISIA funded by ITIDA (2M LE), Industrial Partner AvidBeam, 2015-2016.
- Contribute as a senior researcher for research project ARP2015.R17.11-Complete System for Energy Management funded by ITIDA (1M LE), Industrial Partner

(TieTic) 2015-2016.

- Contribute as an IT expert for building an innovative updatable organic clusters map of Egypt for Social Fund for Development (SFD) - Funded by the African Development Bank (AFDB) (Jan 2015 – April 2016)
- Participate as a speaker in the Egyptian Engineering Day 2014, a lecture titled Face Recognition Now and Then.
- Contribute as an IT expert in building a decision support system for the Egyptian water and waste water holding company - Funded by GIZ (German Program for International Development). (2014-2016).
- Provide IT Consultancy service for ArabiaInForm (A world leader of electronic content from MENA) for migrating their relational database to NoSQL (Big Data) database. (2014)
- Provide IT Consultancy service for the Ministry of Sports for establishing surveillance systems in Sohag Stadium - 2014.
- Provide IT Consultancy service for the Ministry of Sports for establishing surveillance systems in Ismailia Stadium - 2013.
- Provide IT Consultancy service for the Ministry of Sports for establishing surveillance systems in Bani Suef Stadium - 2012.
- Provide Computer Vision advisory for a mobile augment reality research project between GUC and ATech and funded by ITIDA (1M LE), 2012-2013.
- Provide IT Consultancy service for October Vegetable and Fruit market for establishing their Surveillance and billing systems - 2012.
- Provide IT Consultancy service for Dalily (private company) to manage their sales forces – 2010.
- Member of the Quality Assurance Unit of the Faculty of Engineering, Cairo University since 2008.
- Provided IT Consultancy service for Cairo University Hospitals (Kasr Elainy) - 2008.
- Provided IT Consultancy Service for the Federal Electricity and Water Authority UAE, 2005-2007.
- Evaluation of technical papers for international held conferences and journals.
- Session chair for several local and international conferences.
- Member of the organizing committee of ICIP 2009 (Egypt).
- Member of the technical team of the GCC research data portal. 2005-2007.

Fields of Interest

- Image Processing
- Computer Vision
- Machine Learning
- Software and Data Engineering
- Big Data Analytics

Societies

- Senior Member of IEEE
- Member of ACM

Languages

- Arabic: Fluent
- English: Fluent

References

- Available upon request