

---

**EXPERIENCE**

---

- **Philips Healthcare** Pleasanton, CA  
*Principal Software Engineer* *February 2018 - Present*
  - **New Product Development:** Responsible for doing proof of concepts around technology and products early in development stages. Work with product teams on product runway until they are comfortable owning the product.
  - **Technical Debt Reduction:** Re-evaluate existing technology and design decisions that previously increased technical debt and work with product teams to reduce the technical debt and increase quality.
  - **Engineering Operations Improvement:** Helping modernizing services, operations, and field engineering practices.
- **Saint Mary's College of California** Moraga, CA  
*Adjunct Assistant Professor* *Sept 2019 - Present*

Teaching courses in both School of Science and School of Economics and Business Administration.

  - **CS 174 Analysis of Algorithms:** Intermediate course surveys the most important algorithms and data structures in use today. Course taught in Java.
  - **OPS 407 Data Visualization & Storytelling:** Introductory course prepares students to create compelling narratives to effectively communicate the results of their data analysis. Course used Tableau but the concepts and techniques were software neutral.
- **EllieMae** Pleasanton, CA  
*Software Engineer II* *October 2015 - February 2018*
  - **EllieMae Developer Connect:** Led the development and the public roll-out of EllieMae's platform APIs and SDKs. Helped developers on forums and in corporate training sessions.
  - **Encompass Consumer Connect:** Worked on the core team for the first B2C product that utilizes EllieMae's mortgage platform. Worked on platform capabilities that improved user experience and performance.
  - **Encompass TPO Connect.:** Lead one of the off-shore teams by gathering requirements, design, code-review the first bundle of APIs in EllieMae's mortgage platform. Worked closely with front-end engineers on consuming these APIs to deliver the first complete B2B product that utilizes EllieMae's mortgage platform.
  - **Technology Refresh Team:** Implemented modern engineering practices in the following areas: CI/CD (gated checkins, TeamCity, Jenkins). Source control: migration from TFS to GitHub. Package management (in-house shared NuGet server). Service monitoring and alerting (SignalFX & xMatters).
- **Hoot Education, Inc** Dallas, TX  
*Technical Co-Founder* *April 2015 - December 2015*
  - **Hoot Education Solution:** As a technical co-founder I worked with the founder to define requirements, build, test, and deploy the MVP to Microsoft Azure. Administered and configured all the engineering infrastructure on the cloud. Built and led the engineering team till my exit.  
*This was a venture beside my full-time job at Interface People.*
- **Interface People, LP** Dallas, TX  
*Software Engineer* *October 2013 - September 2015*
  - **Quest Designer:** Worked on new features for a desktop suite of designers that enable health care professional build queries, reports, and web pages that consumes their Meditech data outside of Meditech.
  - **Engineering Practices:** Installed, configured and administered the internal SharePoint internet. Introduced continuous integration to engineering teams using TeamCity and Jenkins.
- **Bryan Research & Engineering** Bryan, TX  
*Software Engineer* *December 2011 - September 2013*
  - **Corporate CRM:** Installed, configured, and maintained the corporate CRM using Microsoft Dynamics CRM. Worked on data cleaning and migration to the new CRM.
  - **Corporate Intranet:** Installed, configured, and maintained the internal SharePoint intranet and all the internal applications that interact with it.

- **Teneo Software Solutions** College Station, TX  
*Lead Software Engineer* *May 2012 - October 2012*
  - **Policy Administration System:** Migrated the policy administration system from Delphi to ASP.Net. Migrated the database from DBISAM (<http://www.elevatesoft.com/products?category=dbisam>) to Microsoft SQL Server. During this project, I created an ORM tool for DBISAM to accelerate the development process (To the best of my knowledge, it's the only .Net ORM tool that support DBISAM).  
*This was a independent consultancy job beside my full-time job at Bryan Research & Engineering.*
- **Texas A&M University** College Station, TX  
*Software Applications Developer* *July 2011 - December 2011*  
 Developed internal applications for Scholarships and Financial Aid Department. For each project, I was in charge of requirements gathering, design, build, and deployment.
- **Microsoft** Cairo, Egypt  
*Developer Support Engineer* *November 2008 - December 2010*  
 Delivered quality developer-support/consultation for Microsoft gold certified partners within the company's SLAs. Managed triage sessions and day-to-day team activities.
- **ITWorx** Cairo, Egypt  
*Software Engineer* *January 2008 - October 2008*  
 Developed internal applications as part of the Offshore development team for United Technologies Corp. Specifically I worked for Otis Elevator Company and Sikorsky (when it was part of UTC).
- **quTIP** Cairo, Egypt  
*Software Engineer* *October 2007 - December 2007*  
 Built and maintained mobile applications for field operations done by mobile sales teams.
- **Egyptian Armed Forces** Cairo, Egypt  
*First Lieutenant* *May 2005 - September 2007*  
 Worked on IT and non-IT related projects within the artillery and missiles division.
- **Eurosoft** Cairo, Egypt  
*Software Engineer* *June 2004 - April 2005*  
 I co-founded Eurosoft to provide custom solutions for small and medium European retail enterprises.

## EDUCATION

---

- **University of Illinois at Urbana-Champaign** Champaign, IL  
*Master of Business Administration* *March. 2019 – Present*
- **Software Engineering Institute, Carnegie Mellon University** Pittsburgh, PA  
*Service-Based Architecture Professional Certificate* *April 2019 – April 2019*
- **Software Engineering Institute, Carnegie Mellon University** Pittsburgh, PA  
*Software Architecture Professional Certificate* *Sept 2012 – December 2014*
- **Georgia Institute of Technology** Atlanta, GA  
*Master of Science in Computer Science - Machine Learning* *August 2014 – Present*
- **Nile University** Cairo, Egypt  
*Master of Science in Software Engineering* *August 2008 – June 2010*
- **Helwan University** Cairo, Egypt  
*Bachelor of Science in Computer Science* *August 1999 – June 2004*

## CERTIFICATIONS

---

- **AWS Certified Cloud Practitioner:** March 2019 - March 2022
- **IEEE Computer Society Certified Software Development Professional:** September 2010 - Present

## TECHNICAL SKILLS

---

**Languages:** C#, VB .Net, Java, Python, R, SQL

**Cloud:** AWS, Microsoft Azure

**Database:** Microsoft SQL Server, MySQL, Apache Cassandra, MongoDB

**Containers:** Docker, Kubernetes

**CI/CD:** TeamCity, Jenkins, TFS, TravisCI

**Data visualization:** Tableau Desktop

## VOLUNTEER EXPERIENCE

---

- **DataKind** San Francisco, CA  
*Proposal Reviewer - Google AI for Social Good Challenge* *January 2019 - February 2019*  
Worked with DataKind to help review proposals submitted as part of the Google AI for Social Good Challenge.

## WORK AUTHORIZATION

---

Green Card