Hadi Khaksari Haddad

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Education

2016–2019   **MSc in Computer Engineering**, Université Laval, Québec, Canada
Thesis Title: Alignment of Point Clouds for Comparison of Infrastructures in Civil Engineering on Quality Control in Metrology
Supervisor: Prof. Denis Laurendeau
Related Courses: Vision numérique, Optimisation combinatoire, Vision en inspection industrielle,

2004   **BSc in Computer Engineering**, Sistan and Baluchestan University, Zahedan, Iran.
Related courses: Calculus I, II, Discrete Mathematics, Probability and Statistic, Computer Network, Design of Logic Circuits, Computer Architecture, Engineering Mathematics, Data Structure, Design Algorithm, Software Engineering

2000   **Diploma in math and physic discipline**, Kerman, Iran

Computer Skills

Programming Language   C/C++, Matlab, Python, VHDL, Java (Choco), HTML

OS   Linux (Cent Os and Ubuntu), Windows Server 2012, 2008 and 2003, Macintosh

3D Software   VXelemts by Creaform, 3Ds Max, Blender

Network Software   Cisco Packet Tracer, Access Control, CUCM (Voice Over IP)

Other Software   SQL Server 2012, MySQL, Git, LaTeX, MS Office: Visio, Word, Excel, Power Point; and Photoshop

Professional Skills

- Design and implementation computer applications with Visual Studio
- Good understanding of object-oriented concepts, SQL databases and VMware
- Expert in configuration and installation Cisco routers and switches
- Design and implementation LANs, WANs, and WLANs networks
- Team working, project management

Research Projects

3D Alignment of Point Clouds
Computer Vision and Systems Laboratory (CVSL), Université Laval
Description: *Alignment of real 3D deformed objects scanned by Creaform 3D scanner with the aim of detecting the difference between these objects using Go-ICP. We extend our research work for real-world data set from Bentley Systems, i.e. the alignment between CAD models of civil engineering infrastructures(e.g. building) and point clouds collected during its construction.*
Programming Language: C++ and Matlab

3D Reconstruction and 3D Photography
CVSL, Université Laval
Description: *This team-work course project aims at reconstructing 3D geometry of an textureless object using a single picture. To this end, the structured-light technique as an active method of 3D surface acquisition was utilized to project a predetermined pattern (e.g. stripes) onto the surface of an object. When the pattern hits its surface, it gets distorted. The system then analyses this distortion and reconstruct 3D shape of the surfaces.*
Programming Language: C

Detect Defects of Metal's Surfaces
CVSL, Université Laval
Description:*In this course project, using state-of-the-art faster-RCNN, we aim to detect defections of metal's surfaces from the images taken by RGB camera for the purpose of industrial inspection.*
Programming Language: Python with Pytorch Lib.

Professional Projects

2013-2014 **Device Management Software**
Team member for designing and Developing a software for managing devices through network, *ParsaNet Company*

2012 **Financial Management Software**
Team member for designing and implementation of an application for managing sales, stock, finance and CRM for *Graduate University of Advanced Technology (HIGH TECH)*

2014 **Access Control Application**
Design and development an application to control accesses to server room for *State Welfare Organization of Kerman*

2012 **Configuration Linux server, and Windows Server**
Configure servers and install sever room's Devices for *Graduate University of Advanced Technology (HIGH TECH)*

2013 **Configuration, and Installation VoIP(Voice Over IP)** for *County of Kerman*

2012-2014 **Design and installation LANs, and WANs** for *State Welfare Organization of Kerman, Hormozgan University, and Setoudeh School*

- ○ **Duties:**
  - – Administering and designing LANs, WANs internet and intranet.
  - – Analyzing, and developing key components using methodology prescribed techniques.
  - – Communicating and negotiating with users, specialists, other staff, and suppliers.
  - – Network connectivity troubleshooting, ping, tracer, and telnet.
  - – Responsible for communication protocols, configuration, integration, and security.
  - – Investigating, diagnosing, and resolve all network problems.
  - – Cisco switch configuration in particular VLAN configuration, and troubleshooting.

2012-2013 **Support and maintenance of softwares and internal network** for *Technical and Vocational Training Organization (TVTO-kerman)*

Work Experiences

2011-2012 **Computer Engineer**
Pars Company, Kerman, Iran

2012-2014 **Computer Engineer**
ParsaNet Company, Kerman, Iran

Publication

Hadi Khaksari Haddad, Denis Laurendeau. "Alignment of Point Clouds for Comparison of Infrastructures in Civil Engineering on Quality Control in Metrology." *27. International Conference in Central Europe on Computer Graphics, Visualization and Computer Vision 2019 (WSCG 2019)*, [**Oral**, **Acceptance rate 23.7%**].

Languages

Persian Mother Tongue
English Intermediate
French Intermediate

References

Academic Referee Prof. Denis Laurendeau, Department of Computer and Electrical Engineering, Université Laval, Québec, Canada.
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