

Curriculum Vitae



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Profile: Süleyman Yıldırım

Süleyman holds MSc in Computer Science, complemented by a Professional Doctorate in Engineering degree. He was exposed to a well-designed curriculum that combines theory with adequate practical and technological exposure, which has allowed him to master software development, theory, and computer systems engineering principles that cover the breadth of the subject.

He has acquired significant experience through working on a number of challenging software development projects in various industries for organizations such as Bosch, TNO, CERN Institute, NXP, and Sioux. He consistently delivered high quality output, exercising a mixture of soft and hard skills with professionalism.

During both his studies and the previously mentioned projects he has programmed in a variety of languages such as C++, Java, and JavaScript.

He has hands-on experience, and has attended courses in leading all stages of system development efforts, including requirements definition, design, architecture, development and testing.

He enjoys being constantly up to date with new technologies, and he loves mathematical thinking, computers & solving complex problems.

Personal details:

Gender: **Male**

Military Status: **Completed**

Nationality: **Turkish**

Email: suleymanube@gmail.com

• Consulting • Technology • Outsourcing



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Profile Summary

Key Skills and Competencies

- *Programming Languages:* | **C++** | **Java/J2EE**
- *Web Programming:* | **AngularJS** | **JavaScript** | **JQuery** | **HTML5** | **CSS3** | **Bootstrap** |
- *Scripting Languages:* | **Bash Scripting** | **Python** |
- *Miscellaneous:* | **Spring** | **PL/SQL** | **JSON** | **Maven** | **Sonar** | **JIRA** | **Jenkins** | **HP ALM**
- *Operating Systems:* | **GNU/Linux** | **Microsoft Windows** |
- *Software Engineering:* | **OOAD** | **UML** | **Design Patterns** | **Enterprise Architect** | **Agile**
- *IDE:* | **Eclipse** | **Visual Studio** |
- *Version Control:* | **Git** | **TortoiseGit** |

Education

- **Software Technology, Professional Doctorate in Engineering (PDEng)**
*Technische Universiteit Eindhoven (TU/e),
Stan Ackermans Institute, The Netherlands*
Year: 2014
- **Computer Engineering (MSc)**
International Computing Institute, Ege University, Turkey
Year: 2012
- **ERASMUS Student Exchange Program**
*Knowledge Engineering and Decision Support System Center,
Polytechnic Institute of Porto, Portugal*
Year: 2010 - 2011 (October 2010 – March 2011)
- **Mathematics (BSc)**
Ege University, Turkey
Year: 2008 (February)



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Professional Societies/Certifications/Trainings

- [Accenture] Application Component Detailed Design [33h Training] - May 2015
- [Accenture] Object Oriented Design Patterns [33h Training] - Nov 2015
- [Accenture] Oracle 10g PL SQL [57h Training] - May 2016
- [Accenture] Agile Training [33h Training] - Aug 2016

Honors & Awards

- Grant for participating research project funded by Scientific and Technological Research Council of Turkey (2011)

Publications

- Kardas, G., Challenger, M., Yildirim, S. and Yamuc, A. (2012) "Design and Implementation of a Multi-agent Stock Trading System" Software: Practice and Experience, Wiley-Blackwell Publishing (DOI: 10.1002/spe.1137).
- Yildirim, S., Sayit, M. and Kardas, G. (2014) "A Belief-Desire-Intention Agent Architecture for Partner Selection in Peer-to-Peer Live Video Streaming Applications", Expert Systems (DOI: 10.1111/exsy.12086).

Languages

- Turkish: Proficient user (native language)
- English: Proficient user
- Dutch: Basic user

Additional Information

- Military service: Done
- Driving License: B - Turkish driving license
- Passport: Turkish Citizen / Turkish passport



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Project Experience

Project: Consultancy projects for different clients of Accenture
Period: April 2015 – Present
Company description: Accenture, Izmir Delivery Center
Roles: Software Engineer Sr. Analyst
Project Context
Web application development & maintenance
Activities/Responsibilities
<p>Performed different roles as a full stack developer in the context of enterprise web applications.</p> <ul style="list-style-type: none"> • Coding digital transformation tasks using AngularJS , Java and PL/SQL for a leading insurance company. • Taking part in maintenance of a credit management system using Java, Spring Framework, and MyBatis for a leading bank. • Taking initiative and coding the first front-end unit tests (Jasmine testing framework) of Accenture Izmir. • Participating deployment and bug fixing process for UAT, TEST and PROD environments using JIRA, HP Application Lifecycle Management, and IBM ClearQuest.
Technologies used:
Java , AngularJS , Spring, JavaScript, JQuery, REST, JSON , PL/SQL, Html5 , Bootstrap , Jenkins , Sonar , Bamboo , JIRA

Project: Automotive Object Detection and Tracking
Period: January 2014 – December 2014
Company description: NXP Semiconductors (R&D), Eindhoven
Roles: Software Architect, Software Developer, Project Management
Project Context
Automotive Object Detection and Tracking
Activities/Responsibilities
<p>Project Goal</p> <p>NXP Semiconductors started an investigation into the principles, capabilities and future requirements of smart camera systems, being able to detect and track objects with a large degree of accuracy and confidence. For that reason, the main goal was to gain insights about feature extraction methods for smart cameras, especially for smart data reduction.</p> <p>Challenges</p> <p>Computer vision is not an easy domain to grasp. The first challenge of this project was to get familiar with various feature extraction methods, artificial intelligence and machine learning techniques. The second challenge was to design and implement vision processing pipeline for major automotive use cases, namely vehicles, pedestrians, traffic signs, and lanes. The third challenge was to gain insights about the details of feature extraction methods that provide the most generic solution for all use cases.</p> <p>Results</p>



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A vision processing pipeline was designed and implemented covering all use cases. The system was designed based on the Pipes and Filters architectural pattern. It is modular, extensible and reusable. In addition, the functionalities of the automotive use cases can be extended by adding new filters with minimum effort. The system allows recombining different filters and enables visualization of the object detection and tracking results.

Benefits

This project has created an understanding about how feature extraction methods work in practice to detect and track vehicles, pedestrians, traffic signs, and lanes. These methods were compared to each other with respect to their suitability and effectiveness in an automotive context. The comparison was carried out against challenging automotive images by using state-of-the-art datasets and evaluation methods. Lastly, data reduction and CPU load of the pipeline steps were analyzed for a possible smart camera chip solution.

Technologies used:

C++ , Python , UML , Design Patterns , Visual Studio , OpenCV , Linux

Project: Integrated Development Environment (IDE) for a DSL

Period: October 2013 – December 2013

Company description: CERN Institute, Geneva

Roles: Software Developer

Project Context

IDE for a Domain Specific Language

Activities/Responsibilities

Development of a feature rich IDE prototype for a Domain Specific Language and integration with the WinCC-OA debugger. Coded a part of the debugger component of a feature rich IDE prototype for a Domain Specific Language and integration with the WinCC OA debugger.

Technologies used:

C++ , UML , Apache Thrift, Eclipse , xText

Project: Outlook Calendar Synchronization

Period: August 2013 – September 2013

Company description: TU/e, Eindhoven

Role: Software Developer

Project Context

Outlook Calendar Synchronization

Activities/Responsibilities

Implement customized notification and calendar synchronization software for smart phones to be used by the management assistant of the PDEng program.

Technologies used:

C#, UML , Google Cloud Messaging , Visual Studio



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Project: Intelligent Vehicle Safety Platform (iVSP)
Period: April 2013 – June 2013
Company description: TNO, Helmond
Role: Software Developer, Communication Responsible
Project Context
Intelligent Vehicle Safety Platform
Activities/Responsibilities
Design and implement layer-based software architecture for iVSP. Member of the project management team. Communicator between the client and the team leaders. Planned weekly meetings with customer, demonstrations, vehicle testing, and made presentations.
Technologies used:
Project Management , Risk Analysis

Project: Rpi VideoWall
Period: January 2013 – March 2013
Company description: SIOUX, Eindhoven
Roles: Software Developer, Quality Control Manager
Project Context
VideoWall System
Activities/Responsibilities
Designed and developed the communication part of a VideoWall System consisted of a 3-by-3 displays driven by nine Raspberry Pi.
Technologies used:
C++ , UML , Image processing , OpenCV

Project: Scalable User Interface for Public Address System
Period: November 2012 – December 2012
Company description: BOSCH, Eindhoven
Roles: Software Developer, Test Manager
Project Context
Public Address System
Activities/Responsibilities
Designed and developed a web interface for public address system using HTML5 and WebRTC technology. The main requirement was to be scalable on different browsers, OS and devices.
Technologies used:
HTML5 , CSS3 , JavaScript , WebRTC , UML



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Project: A Belief-Desire-Intention Agent Architecture for Partner Selection in Peer-to-Peer Live Video Streaming Applications

Period: October 2011 – October 2012

Company description: Ege University, Turkey

Roles: Software Developer, Researcher

Project Context

Intelligent Video Streaming

Activities/Responsibilities

A software agent architecture for video streaming systems was introduced. The project goal was to exhibit how to select the best partner during video streaming session while maximizing the quality of video and minimizing delay and hop count. The effects and comparative results of executing proposed agent behaviors were evaluated. The proposed autonomous agent-based approach also provided an infrastructure in which the best plan for the achievement of optimum streaming goal could be dynamically determined and executed at runtime.

Technologies used:

Java , Java Agent Compiler Kernel (JACK)