ARDA TEMEL

Software Intern

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EDUCATION

Honors BSc Computer Science

York University   📅 01/2019 - Ongoing   GPA **3.8** / 4.0

- Course Work in Computer graphics, simulation and animation.
- Math and stats chair honor roll

EXPERIENCE

Software Engineer Intern C++

OssKin   📅 2022 - Ongoing   📍 Montréal, Canada

3D modeling software that aims to mass customize 3D orthotics to specific patients' anatomies

- Major contributions to the architectural structure of the code base and implementation of key features.
- Practiced scrum methodology delivered multiple presentations on the state of the project.
- Worked on Mesh preparation and loading from 3D scans to real-time application.
- Model and customize the orothics using mathematical representations such as curves, splines, surfaces, and meshes
- Write efficient and clean code using guidelines provided by the team lead.
- Implemented unit tests for critical operations in the system.

Creative Developer Intern

BMS Labs   📅 09/2020 - 09/2021   📍 Enschede, Netherlands

The BMS lab provides a wide range of technical services for application development.

- Designed and implemented 10 immersive VR/AR applications utilizing object-oriented design principles using Unity and C#.
- Built-in editor tools for Unity using C# and .Net improving overall productivity via enabling contribution from non-developers.
- Design and implement game systems using object-oriented design patterns
- Decreased project size by %50 via implementing custom shaders.
- Wrote design and technical documents utilizing UML diagrams.
- Applied root cause analysis to optimize the performance of applications.

Software Intern

Ravico Analatycs Inc.   📅 05/2020 - 09/2020   📍 Toronto

Laboratory Informatics planning systems.

- Practiced Agile Methodology to develop a complex software system in a progressive manner.
- Designed UI using Adobe XD and implemented in React.js.
- Developed and Maintained serverless web-app using AWS cloud functions.
- Built tools for data serialization using Phyton and Javascript.
- Constructed data models using MySQL, which are used in the database.
- Collaborated with other developers using git.

SKILLS

Toolbox

Unity   Unreal Engine   MySQL   OpenGL   .NET

XR Development   Figma   Linux   GLSL/HLSL   React   Git

Github/Gitlab   AdobeXD   Scrum   Jira   Rhino   Svelte

PROGRAMMING LANGUAGES

C\C++
▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬

C#
▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▭

Javascript
▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▭ ▭

Java
▬ ▬ ▬ ▬ ▬ ▬ ▬ ▭ ▭ ▭

PROJECTS

Inverse Kinematics

📍 York University Toronto, ON

Real-time IK simulator for a humanoid character - OpenGL, C++

- Fully functional real-time IK solver using pseudo-inverse matrix
- Final Grade A+

3D Spring Mass Simulation

📍 York University Toronto, ON

Spring mass system simulation in C++ capable of multiple integration models.

- Real-time collision detection and resolve collisions via penalty systems using springs
- Euler, symplectic, and verlet integration for update
- Can simulate 1000+ particles and springs.

Using Virtual Reality to Improve Subjective Vitality

📍 University of Twente, Bms Lab/Netherlands

🔗 https://essay.utwente.nl/89140/

Immersive VR Research

- The study focused on the design, development, and usability of a virtual reality (VR) nature experience to improve subjective vitality of university students.

Mirror Therapy in Virtual Reality by a Brain-Computer Interface

📍 University of Twente, Bms Lab/Netherlands

🔗 https://essay.utwente.nl/87423/

VR research w/ EEG integration

- Develop and evaluate a Virtual Reality (VR) system, used for rehabilitation through Mirror Therapy, that is inclusive for people experiencing Phantom Limb Pain after amputation.
- Real time data streaming through LSL