Rotaru Razvan-Paul

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Education

Bachelor's in Computer Science	University Politehnica of Bucharest	Oct 2015–Jun 2020

- Faculty of Computer Science and Automatic Control
- Coursework: Introduction to Operating Systems (Linux), Algorithm Design and Analysis (C++), Data Structures (C++), Object-Oriented Programming (Java), Computer Networking (C), Computer Architecture and Assembly Language (x86), Programming Paradigms (Racket, Haskell, Prolog), Distributed systems and parallel computing, Computer Graphics, OS Programming, DataBase Management (MySQL, Mongo), Artificial Intelligence (Python), Machine Learning (Python), Compilers (Java)

Master's in Computer Graphics, Multimedia and Virtual Reality	University Politehnica of Bucharest	Oct 2020–present

- Coursework: Introduction to Virtual Reality, 3D Modelling, Sound and Image Processing
- Follow-up courses: GPU Programming, 3D Real-Time Graphics Engine

Projects

- **Dodge TH!S (ongoing) –** A story-driven 3D action-adventure mobile game developed in Unity.
- **Not Another Tower Defense (ongoing) –** A 3D mobile tower defense which actually involves defending a single tower.
- **MMORPG (Summer 2021) –** Built a 3D online RPG prototype built in Unity that supports up to 30 people and includes different classes, enemies, abilities, and pets.
- **Genetic Algorithm for Species (Spring 2021)** – Implemented an adaptation system to the medium using genetic algorithms.
- **3D Neighbors from Hell (Autumn 2020)** – Built a 3D game in Unity, recreating the setting of an existing 2D game.
- **Neural Style Transfer (Spring 2020)** – Used VGG19 convolution network to transfer the style of a style image to content image.
- **Backward Reasoner (Fall 2019)** – Interpreted statements and questions using the backward chaining reasoning.
- **Cool Compiler (Fall 2019)** – Implemented support for various commands trough a compiler for Cool Language by building and interpreting an Abstract Syntax Tree using the visitor pattern.
- **Thread Scheduler (Spring 2018)** – Synchronized threads via busy-waiting and sleeps following the Round Robin algorithm.
- **Image Processing (Spring 2018) -** Used distributed computing to process and modify images through multiple threads.
- **Movie Recommender System (Summer 2017)** – Implemented a recommender system over a movie database using collaborative filtering.
- **FileSystem (November 2016)** – Developed a Linux file system in Java which supports simple commands (adduser, chuser, cd, mkdir, ls, chmod, touch, rm)
- **GeoMarketing (Spring 2016)** – Collaborated with 13 class colleagues to design and implement modified basic data structures in C++ (Heap, Binary Search Tree, Linked List, Queue, AVL, HashTable) as a university project
- **C Allocator (Winter 2016)** - Implemented a simplified memory allocator in C as a project for the Computer Programming course with basic functions such as: dump, alloc, fill, show, free

Volunteer and Open Source

- GitHub account: https://github.com/RazvanRotaru

Work Experience

- DevOps Engineer at Thales (September 2021 – current)

Additional Experience

- Participate in Gameloft workshops (Game Economy, Level Design, Multiplayer, 3D Modeling)
- Experience with machine learning algorithms (Linear and Logistic regression, Neuronal Networks, PCA, Anomaly Detection) while attempting a Machine Learning Course from Stanford University
- Completed the Oracle Academy course of Database Design and Programming with SQL
- Participated and won prizes in several programming and mathematics competitions.

Languages and Technologies

- C++, C, C#, Python –experienced
- Java, Dart, Bash, Assembly, NoSQL, Networking, docker – good
- SQL Databases, Octave, Ansible, Terraform, Kubernetes – intermediate