Eran Geva

Algorithm specialist

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PROFILE

Experienced algorithm engineer with a background in image processing, high-performance computing, 3D generative modelling and code generators.

EXPERIENCE

Independant - *Algorithm Specialist*

2016 - PRESENT

- Consultant and freelance developer of computer vision and 3D manipulation algorithms.
- Some of the technologies I used: C++, OpenCV, CUDA, C#, Unity, Unreal, JS, ThreeJs, Leaflet, Cesium, Python, Tensorflow, Matlab.
- Projects involving: AR prototypes, VR simulations, GIS, IoT, 3D modelling, 3D projection, unwrapping, 2D animation, GPU acceleration, Robotics by vision, Traditional vision.
- Nonprofit projects: Web radio (kzradio), 3D mobile game (amazeball), web-scraping.

Autodesk - *Algorithm Engineer*

Aug 2014 – Nov 2016

- Applied research for 3D printing techniques, generative designs, physics simulations and VR. Wrote mesh, voxel, toolpath manipulations using C++14 and three.js with shaders.

Icaros, Inc - *Algorithm Engineer*

October 2009 - March 2014

- Developed image processing engine for aerial photos. Implemented feature extraction, stereo matching, seam-curving, image fusion, 3D meshing and other algorithms.
- Used C++, opencv, tbb for multicore/multithreading, cuda for gpu acceleration and others.

Ben Gurion University - *Msc Student and Teaching Assistant*

March 2007 - October 2009

- Researched GPU acceleration using CUDA for 3D convex hull, 3D modelling from images and various computer vision algorithms. Experienced with C++, openGL and Matlab.
- Teaching assistant on Algorithms, Programming Principles (Scheme) and C courses.

Brevan Howard - *Programmer*

2006

- Stock trading protocol (FIX) and excel/wealthlab plugins using C++.

SilverKite/Duet Networks - *Programmer*

2004

- Code generator for real-time XML/XSD parsing using Java, C++, YACC/LEX.

Comverse - *Programmer*

1998 - 2003

- XML conversion tool as a reflection based code-generator of java/C for j2me/brew.
- Rule-based C++ expert system for monitoring and correcting of distributive applications.

Software company - *Programmer*

1994 - 1998

- Rule based manipulation of composite messages on PC/Unix using PLSQL/C++.
- VB and intranet face-lift for a mainframe based DB system.
- Real-time text analysis expert system on mainframe using Natural/PL1/Fortran.

EDUCATION

Ben-Gurion University of the Negev - *MSc, Computer Science*

2007 - 2009

Thesis: GPGPU usages in 3D modeling from images.

Ben-Gurion University of the Negev - *BSc, Bioinformatics*

2001 - 2004

Final Project: Finding resemblance between proteins/strings in sub-linear speed.

Software School - *Computer Programming*

1994

Publications

[CudaHull: Fast parallel 3D convex hull on the GPU](#)

2012

Languages

English - Excellent proficiency

Hebrew - Native language