

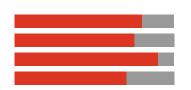
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Summary __

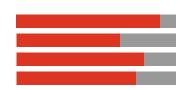
With over 12 years of software development experience, including 4 years specializing in machine learning, I am an accomplished software developer with a proven track record of leading teams focused on R&D projects. My expertise lies in building software at the intersection of machine learning and creativity. I am passionate about developing innovative solutions that push the boundaries of what's possible with technology, and I'm always eager to take on new challenges.

Skills

C/C++ **PyTorch, TensorFlow Game Engines HLSL, GLSL**



Python, NumPy Ray Tracing DirectX, OpenGL



Work Experience __

Unity Technologies

Seattle, WA, USA Aug. 2019 - Present

- SENIOR SOFTWARE ENGINEER / SOFTWARE ENGINEERING MANAGER
- · Accelerated machine learning training and inference by creating custom GPU kernels/ops and improving training and inference overhead.
- Implemented high-performance, GPU accelerated tile-stitching for Unity's terrain system with zero latent allocations.

· Augmented the graphical capabilities at Unity using state-of-the-art ML enhanced rendering techniques.

- · Collaborated with several teams at Unity to improve artist and tech art workflows when working with large game worlds with machine learning.
- · Worked with program management across rendering and lighting teams at Unity to define roadmaps and visions for ML accelerated lighting & rendering at Unity.
- · Led a team of skilled engineers to conduct cutting-edge research in utilizing machine learning to enhance lighting and rendering for games.
- Fixed long-running issues in Terrain rendering at Unity, unblocking several game studios.
- Patent Pending: System and Method for Interactive Asynchronous Tile-Based Terrain Generation

Crystal Dynamics Redwood City, CA, USA

Engine Lead, Future Projects / Senior Software Engineer

- Nov 2014 Aug 2019
- · Led the R&D team developing engine and tool technologies for the future of games at Crystal Dynamics. • Engineered a novel end-to-end graph-based artist-animated blendshape control from Maya to the game.
- Improved editor performance by over 20x in 2 years, and rendering performance by 2x.
- Developed a solution to support collaborative editing of game worlds in real-time.
- Patent #11189068: Macro-based electronic map editing.

SOFTWARE APPLICATIONS ENGINEER, ANIMATION & RIGGING TOOLS

Dreamworks Dedicated Unit

Bengaluru, Karnataka, India

Mar 2013 - Oct 2014

- With the R&D team, developed the award-winning animation and rigging tools for DreamWorks Animation.
- Improved design of cache handling and paging to improve editor performance.
- · Prototyped high-performance hierarchical memory models for the next generation rigging tools.

Microsoft Corporation

Nokia Research Center

SOFTWARE DEVELOPMENT ENGINEER IN TEST, XBOX GRAPHICS

Redmond, WA, USA

July 2011 - Oct 2012

Santa Monica, CA, USA

May 2010 - July 2010

Bengaluru, Karnataka, India

July 2006 - July 2009

Yahoo! Software Development India

SENIOR SYSTEMS ENGINEER / SYSTEMS ENGINEER

RESEARCH INTERN, MOBILE EXPERIENCES

Education

Masters of Science in Computer Science, Game Development

University of Southern California

BMS COLLEGE OF ENGINEERING

Los Angeles, CA, USA

Aug 2009 - May 2011

Bachelor of Engineering, Computer Science

Bengaluru, Karnataka, India

Aug 2002 - June 2006

Udacity

Online

NANODEGREE, AI FOR TRADING Jun 2021 - May 2022

NANODEGREE, DEEP LEARNING Jun 2020 - Oct 2020