

# MARK VANDEWETTERING

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## SENIOR TECHNICAL DIRECTOR

Collaborative leader, figurative firefighter, and perpetual student of new tech with 25+ years at Pixar Animation Studios, leading best-in-class teams of high performing experts in developing solutions, resolving technical questions, boosting performance and reliability, and providing technical direction to ensure productions on time, on budget, and flawlessly aligned with creative vision.

### AREAS OF EXPERTISE

- Cross-Functional Collaboration
- Software Development
- Technical Debugging
- Problem Solving
- Hardware Development
- Stereoscopic 3D
- Troubleshooting
- Team Building
- Mentoring and Coaching
- Process Improvement
- Technical Documentation
- Workflow Development

### PROJECTS & ROLES

- *Elemental* | Lighting Technical Lead, 2023
- *Turning Red* | Sequences Dailies Lead, 2022
- *Pixar Popcorn* | Rendering, 2021
- *Soul* | Lightspeed Technical Lead, 2020
- *Toy Story 4* | Lightspeed Technical Director, 2019
- *Incredibles 2* | Additional Stereo Artis, 2018
- *Bao* | Lightspeed and Rendering Lead, 2018
- *Coco* | Lightspeed Technical Director, 2017
- *Cars 3* | Lightspeed Technical Director, 2016
- *Finding Dory* | New Tech Integration Engineer, 2016
- *Cars 2* | 360 Group, 2011
- *WALL·E* | Starfields Development, 2008
- *Ratatouille* | Technical Development Team, 2007
- *The Incredibles* | Rendering Technical Artist, 2004
- *Finding Nemo* | Technical Developer, 2003
- *Monster's Inc.* | Software Engineer, 2001
- *A Bug's Life* | Rendering Software Engineer, 1998
- *Toy Story* | Renderman Lighting Team, 1995

### PROFESSIONAL ACCOMPLISHMENTS

**Served as Lighting Technical Lead** for *Elemental* and collaborated with DP, ~30 lighters, and character and effects teams to ensure productivity when every character required substantial effects and lighting work, delivering film earlier than budgeted.

**Harnessed multiple approaches to solve complex performance and quality issues** as Lightspeed Lead for *Soul*, developing two entirely different worlds requiring different approaches and assets, leading team of 6 in debugging issues, collaborating with lighting, effects, rendering, and dailies department, and ensuring timely resolution of all problems.

**Delivered Stereoscopic 3D recreations of historic Pixar films** including Toy Story 2 and Cars, guiding team of technical artists as Stereoscopic 3D Technical Lead to collaborate closely with stereographer and directors, perform "software archaeology" to resurrect old assets and pipelines, and facilitate training on innovative new technologies and workflows.

**Spearheaded innovation** and use of new tools and technologies as significant contributor to Pixar's Tech Hub.

**Architected and programmed RenderMan compliant raytracer** and developed and supported Photorealistic RenderMan product as Senior Software Engineer, creating early versions of Point and Curve primitives, improving motion blur and depth of field, optimizing shading language, and scaling for next gen technologies, resulting in IEEE Milestone Award.

**Developed hardware and software resulting in multiple patents**, including light field motion picture camera.

### CAREER HISTORY

#### PIXAR ANIMATION STUDIOS | Senior Technical Director

1991-2024

Led diverse teams of artists and technicians across multiple disciplines including technical lighting, stereoscopic 3D, software development, hardware development, and workflow optimization. Delivered solutions to broad range of technical and artistic problems during dozens of film productions, including programming software solutions in C++ and Python as well as other languages. Developed, documented and implemented workflows to boost productivity, trained and mentored technical directors, and deployed solutions to cure daily rendering and production issues faced by multiple departments. Mentored staff as part of internal mentor program. Embraced and championed new tools and technologies, driving innovation in animation. Credited in 20+ productions on IMDB.

### PROFESSIONAL ACTIVITIES

- Volunteer:** Instructor, Chabot Space and Science Center. Teach public Telescope Maker's Workshop.  
Restorer, Chabot Space and Science Center. Restore Rachel, 20" Brashear Refractor.
- Education:** BS & MS, Computer and Information Sciences; University of Oregon.
- Tools:** Katana, Nuke, Houdini, C++, Python, Shell, LIST, Confluence, Perforce, Git
- Affiliation:** Member, ACM SIGGRAPH Society.