

NOTE: This disposition is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

LOUIS A COFFELT, JR.,
Plaintiff-Appellant

v.

NVIDIA CORPORATION, AUTODESK, INC., PIXAR,
Defendants-Appellees

2017-1119

Appeal from the United States District Court for the
Central District of California in No. 5:16-cv-00457-SJO-
KK, Judge James S. Otero.

Decided: March 15, 2017

LOUIS A. COFFELT, JR., Riverside, CA, pro se.

LOWELL D. MEAD, Cooley LLP, Palo Alto, CA, for de-
fendant-appellee NVIDIA Corporation. Also represented
by HEIDI LYN KEEFE; MICHAEL GRAHAM RHODES, San
Francisco, CA.

JEANNINE YOO SANO, White & Case LLP, Palo Alto,
CA, for defendant-appellee Autodesk, Inc. Also represent-

ed by CARMEN LO, Los Angeles, CA; JASON LIANG XU, Washington, DC.

EVAN FINKEL, Pillsbury Winthrop Shaw Pittman LLP, Los Angeles, CA, for defendant-appellee Pixar. Also represented by MICHAEL SHIGEYORI HORIKAWA.

Before PROST, *Chief Judge*, BRYSON and WALLACH, *Circuit Judges*.

PER CURIAM.

Louis A. Coffelt, Jr. appeals from the decision of the United States District Court for the Central District of California, concluding that all claims of U.S. Patent 8,614,710 (“’710 patent”) are invalid under 35 U.S.C. § 101. *Coffelt v. NVIDIA Corp.*, No. 5:16-cv-00457 (C.D. Cal. June 21, 2016); Appellee’s App. 1–12.

Mr. Coffelt owns the asserted patent, which is directed to “a method for deriving a pixel color in a graphic image.” ’710 patent, Abstract. The patent recites one independent claim and five dependent claims.

Mr. Coffelt sued NVIDIA Corporation and other defendants (collectively, “NVIDIA”) for infringement of the ’710 patent. The district court granted NVIDIA’s motion to dismiss Mr. Coffelt’s complaint, concluding that all claims of the ’710 patent are invalid under § 101 as they are directed to the “abstract mathematical algorithm for calculating and comparing regions in space.” Appellee’s App. 10. The court noted that “[i]n the instant invention, a pixel color is derived mathematically using vectors in a particular steradian region. The calculations claimed can be done by a human mentally or with a pen and paper.” *See id.* at 9 (quoting ’710 Patent Office Action of Jan. 31, 2013, *id.* at 32). Mr. Coffelt timely appealed to this court. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

On appeal, Mr. Coffelt argues that the claims are patent eligible because they: (1) are not directed to an abstract idea because “*space*[—]the region we all exist in[—]or abstract space . . . is a distinct element required by the claims,” Appellant’s Opening Br. 10 (last alteration in original); and (2) recite an inventive concept because “3 *dimensional* steradian space infrastructure, is an improvement over the prior state of the art 2 dimensional shadow map framework,” *id.* at 11.

Neither argument is persuasive. First, the claims at issue here are directed to the abstract idea of calculating and comparing regions in space. We have held that “analyzing information by steps people [can] go through in their minds, or by mathematical algorithms, without more . . . [are] mental processes within the abstract-idea category.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1146 (Fed. Cir. 2016). The claims of the ’710 patent recite a series of calculating steps, i.e., an algorithm, used to derive the color of a pixel. Mr. Coffelt argues that “calculating a particular steradian region of space” is not abstract because “space” is a real thing, not an abstract concept. However, “*calculating* a . . . steradian region of space,” as recited in claim 1, is a purely arithmetic exercise. ’710 patent col. 13 ll. 13–14. The claims thus recite nothing more than a mathematical algorithm that could be implemented using a pen and paper.

Second, the claims lack an inventive concept sufficient to transform the abstract idea into a patent-eligible invention. The “mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2358 (2014). The parties do not dispute that the claims can be implemented on a generic computer. Mr. Coffelt argues instead that the claims recite an inventive concept because the prior art purportedly only derived two-dimensional shadow maps

and the claims allow a computer to derive “realistic complex 3D shadows.” Appellant’s Opening Br. 11. The novelty of the algorithm, however, does not determine whether the claim recites an inventive concept. Instead, the inventive concept must “transform” the patent-ineligible algorithm into a “patent-eligible application” of the algorithm, and do so by more than merely implementing the algorithm on a generic computer. *Alice*, 134 S. Ct. at 2355. The asserted claims fail to do so here.

We have considered Mr. Coffelt’s remaining arguments but find them to be unpersuasive. For the foregoing reasons, we affirm the judgment of the district court.

AFFIRMED

COSTS

The parties shall bear their own costs.