COMPLAINT FOR INFRINGEMENT OF PATENT

Now comes, Plaintiff, Rondevoo Technologies LLC ("Plaintiff" or "Rondevoo"), by and through undersigned counsel, and respectfully alleges, states, and prays as follows:

NATURE OF THE ACTION THE PARTIES

- 1. This is an action for patent infringement under the Patent Laws of the United States, Title 35 United States Code ("U.S.C.") to prevent and enjoin Defendant VoxelCloud, Inc. (hereinafter "Defendant"), from infringing and profiting, in an illegal and unauthorized manner, and without authorization and/or consent from Plaintiff from U.S. Patent No. 7,088,854 ("the '854 Patent"), U.S. Patent No. 7,254,266 ("the '266 Patent"), and U.S. Patent No. 8,687,879 ("the '879 Patent") (collectively the "Patents-in-suit"), which are attached hereto as Exhibit A, B, and C, respectively, and incorporated herein by reference, and pursuant to 35 U.S.C. §271, and to recover damages, attorney's fees, and costs.
- 2. Plaintiff is a California limited liability company with its principal place of business at 177 E. Colorado Blvd., Pasadena, California, 91105.
- 3. Upon information and belief, Defendant is a corporation organized under the laws of California, having a principal place of business at 1063 Gayley Ave. 3rd Floor, Los Angeles, California, 90024. Upon information and belief, and according to the California Secretary of State's website, Defendant may be served with process c/o its registered agent: Xiaowei Ding, 1063 Gayley Ave 3rd Floor, Los Angeles, California, 90024.
- 4. Plaintiff is further informed and believes, and on that basis alleges, that Defendant operates the website www.voxelcloud.io, which is in the business of providing computing solutions and services, amongst other things. Defendant derives a portion of its revenue from advertisements, sales and distribution via electronic transactions conducted on and using at least, but not limited to, its Internet website

located at www.voxelcloud.io, and its incorporated and/or related systems (collectively the "VoxelCloud Website"). Plaintiff is informed and believes, and on that basis alleges, that, at all times relevant hereto, Defendant has done and continues to do business in this judicial district, including, but not limited to, providing products/services to customers located in this judicial district by way of the VoxelCloud Website.

JURISDICTION AND VENUE

- 5. This is an action for patent infringement in violation of the Patent Act of the United States, 35 U.S.C. §§1 *et seq*.
- 6. The Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§1331 and 1338(a).
- 7. This Court has personal jurisdiction over Defendant by virtue of its systematic and continuous contacts with this jurisdiction and its residence in this District, as well as because of the injury to Plaintiff, and the cause of action Plaintiff has risen in this District, as alleged herein.
- 8. Defendant is subject to this Court's specific and general personal jurisdiction pursuant to its substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in California and in this judicial District; and (iii) being incorporated in this District.
- 9. Venue is proper in this judicial district pursuant to 28 U.S.C. §1400(b) because Defendant resides in this District under the Supreme Court's opinion in *TC Heartland v. Kraft Foods Group Brands LLC*, 137 S. Ct. 1514 (2017) through its regular and established place of business in this District.

FACTUAL ALLEGATIONS

10. On August 8, 2006, the United States Patent and Trademark Office ("USPTO") duly and legally issued the '854 Patent, entitled "Method and apparatus

for generating special-purpose image analysis algorithms" after a full and fair examination. See Exhibit A.

- 11. Plaintiff is presently the owner of the '854 Patent, having received all right, title and interest in and to the '854 Patent from the previous assignee of record. Plaintiff possesses all rights of recovery under the '854 Patent, including the exclusive right to recover for past infringement.
- 12. The invention claimed in the '854 Patent comprises a computer program product for generating special-purpose image analysis algorithms.
 - 13. Claim 1 of the '854 Patent states:
 - "1. A computer program product for generating special-purpose image analysis algorithms comprising:
 - a computer usable medium having computer readable program code embodied therein, said computer readable program code configured to:

obtain at least one image having a plurality of chromatic data points;

generate an evolving algorithm that partitions said plurality of chromatic data points within said at least one image into at least one entity identified in accordance with a user's judgment; and

store a first instance of said evolving algorithm as a product algorithm wherein said product algorithm enables the automatic classification of instances of said at least one entity within at least one second image in accordance with said judgment of said user." See Exhibit A.

14. Defendant commercializes, inter alia, a computer program product or methods that perform all the steps recited in at least one claim of the '854 Patent. More particularly, Defendant commercializes, inter alia, a computer program product

or methods that perform all the steps recited in Claim 1 of the '854 Patent
Specifically, Defendant makes, uses (at least in internal testing), sells, offers for sale
or imports a computer program product or method that encompasses that which i
covered by Claim 1 of the '854 Patent.

- 15. On August 7, 2007, the USPTO duly and legally issued the '266 Patent, entitled "Method and apparatus for generating special-purpose image analysis algorithms" after a full and fair examination. See Exhibit B.
- 16. Plaintiff is presently the owner of the '266 Patent, having received all right, title and interest in and to the '266 Patent from the previous assignee of record. Plaintiff possesses all rights of recovery under the '266 Patent, including the exclusive right to recover for past infringement.
- 17. The invention claimed in the '266 Patent comprises a method for automating the expert quantification of image data using a product algorithm
 - 18. Claim 1 of the '266 Patent states:
 - "1. In a computer system, a method for automating the expert quantification of image data using a product algorithm comprising:

obtaining a product algorithm for analysis of a first set of image data wherein said product algorithm is configured to recognize at least one entity within said first set of image data via a training mode that utilizes iterative input to an evolving algorithm obtained from at least one first user, wherein said training mode comprises:

presenting a first set of said at least one entity to said user for feedback as to the accuracy of said first set of identified entities;

obtaining said feedback from said user;

executing said evolving algorithm using said feedback;

presenting a second set of said at least one entity to said user for feedback as to the accuracy of said second set of identified entities;

obtaining approval from said user about said second set of entities; storing said evolving algorithm as a product algorithm;

providing said product algorithm to at least one second user so that said at least one second user can apply said product algorithm against a second set of image data having said at least one entity." See Exhibit B.

- 19. Defendant commercializes, inter alia, a computer program product or methods that perform all the steps recited in at least one claim of the '266 Patent. More particularly, Defendant commercializes, inter alia, a computer program product or methods that perform all the steps recited in Claim 1 of the '266 Patent. Specifically, Defendant makes, uses (at least in internal testing), sells, offers for sale, or imports a computer program product or method that encompasses that which is covered by Claim 1 of the '266 Patent.
- 20. On April 1, 2014, the USPTO duly and legally issued the '879 Patent, entitled "Method and apparatus for generating special-purpose image analysis algorithms" after a full and fair examination. See Exhibit B.
- 21. Plaintiff is presently the owner of the '879 Patent, having received all right, title and interest in and to the '879 Patent from the previous assignee of record. Plaintiff possesses all rights of recovery under the '879 Patent, including the exclusive right to recover for past infringement.
- 22. The invention claimed in the '879 Patent comprises a non-transitory computer program product for automating the expert quantification of image data.
 - 23. Claim 1 of the '879 Patent states:
 - "1. A non-transitory computer program product for automating the expert quantification of image data comprising:
 - a computer-readable medium encoded with computer readable instructions executable by one or more computer processors to quantify image sets comprising a locked evolving algorithm, wherein said locked evolving algorithm is generated by:

obtaining a product algorithm for analysis of a first set of image data wherein said product algorithm is configured to recognize at least one entity within said first set of image data via a training mode that utilizes iterative input to an evolving algorithm obtained from at least one first user, wherein said training mode comprises:

presenting a first set of said at least one entity to said user for feedback as to the accuracy of said first set of identified entities;

obtaining said feedback from said user;

executing said evolving algorithm using said feedback;

presenting a second set of said at least one entity to said user for feedback as to the accuracy of said second set of identified entities;

obtaining approval from said user about said second set of entities; storing said evolving algorithm as a product algorithm; and

storing said product algorithm for subsequent usage on said image sets." See Exhibit B.

24. Defendant commercializes, inter alia, a computer program product or methods that perform all the steps recited in at least one claim of the '879 Patent. More particularly, Defendant commercializes, inter alia, a computer program product or methods that perform all the steps recited in Claim 1 of the '879 Patent. Specifically, Defendant makes, uses (at least in internal testing), sells, offers for sale, or imports a computer program product or method that encompasses that which is covered by Claim 1 of the '879 Patent.

DEFENDANT'S PRODUCT(S)

25. Defendant offers solutions, such as the VoxelCloud medical image analysis system (the "Accused System"), that enables image analysis based on product algorithms.

- 26. A non-limiting and exemplary claim chart comparing the Accused System to Claim 1 of the '854 Patent is attached hereto as Exhibit D and is incorporated herein as if fully rewritten.
- 27. As recited in Claim 1 of the '854 Patent, a system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a computer program product for generating special-purpose image analysis algorithms. See Exhibit D.
- 28. As recited in one portion of Claim 1 of the '854 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a computer usable medium having computer readable program code embodied therein. See Exhibit D.
- 29. As recited in another portion of Claim 1 of the '854 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is computer readable program code configured to: obtain at least one image having a plurality of chromatic data points. See Exhibit D.
- 30. As recited in another portion of Claim 1 of the '854 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is computer readable program code configured to: generate an evolving algorithm that partitions said plurality of chromatic data points within said at least one image into at least one entity identified in accordance with a user's judgment. See Exhibit D.
- 31. As recited in another portion of Claim 1 of the '854 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is computer readable program code configured to: store a first instance of said evolving algorithm as a product algorithm wherein said product algorithm enables the automatic classification of instances of said at least one entity within at least one second image in accordance with said judgment of said user. See Exhibit D.

- 32. A non-limiting and exemplary claim chart comparing the Accused System to Claim 1 of the '266 Patent is attached hereto as Exhibit E and is incorporated herein as if fully rewritten.
- 33. As recited in Claim 1 of the '266 Patent, a system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a method for automating the expert quantification of image data using a product algorithm by offering automated medical image algorithms. See Exhibit E.
- 34. As recited in one portion of Claim 1 of the '266 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a step of obtaining a product algorithm for analysis of a first set of image data wherein said product algorithm is configured to recognize at least one entity within said first set of image data via a training mode that utilizes iterative input to an evolving algorithm obtained from at least one first user. Namely, VoxelCloud offers an automated medical image analysis algorithm that recognizes entities, such as but not limited to lung nodes, in a first set of image data based on expert annotation. See Exhibit E.
- 35. As recited in another portion of Claim 1 of the '266 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a step of the training mode comprising: presenting a first set of said at least one entity to said user for feedback as to the accuracy of said first set of identified entities. Namely, VoxelCloud evolves basic algorithms using training data from expert annotations of multiple sets of image data. See Exhibit E.
- 36. As recited in another portion of Claim 1 of the '266 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a step of the training mode comprising: obtaining said feedback from said user. Namely, VoxelCloud evolves basic algorithms using training data from expert annotations of multiple sets of image data. See Exhibit E.

- 37. As recited in another portion of Claim 1 of the '266 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a step of the training mode comprising: executing said evolving algorithm using said feedback. Namely, VoxelCloud evolves basic algorithms using training data from expert annotations of multiple sets of image data. See Exhibit E.
- 38. As recited in another portion of Claim 1 of the '266 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a step of the training mode comprising: presenting a second set of said at least one entity to said user for feedback as to the accuracy of said second set of identified entities. Namely, VoxelCloud evolves basic algorithms using training data from expert annotations of multiple sets of image data. See Exhibit E.
- 39. As recited in another portion of Claim 1 of the '266 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a step of the training mode comprising: obtaining approval from said user about said second set of entities; storing said evolving algorithm as a product algorithm. Namely, evolves basic algorithms using training data from expert annotations of multiple sets of image data. See Exhibit E.
- 40. As recited in another portion of Claim 1 of the '266 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a step of the training mode comprising: providing said product algorithm to at least one second user so that said at least one second user can apply said product algorithm against a second set of image data having said at least one entity. Namely, evolves basic algorithms using training data from expert annotations of multiple sets of image data. See Exhibit E.
- 41. A non-limiting and exemplary claim chart comparing the Accused System to Claim 1 of the '879 Patent is attached hereto as Exhibit F and is incorporated herein as if fully rewritten.

- 42. As recited in Claim 1 of the '879 Patent, a system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a not transitory computer program product for automating expert quantification of image data. See Exhibit F.
- 43. As recited in one portion of Claim 1 of the '879 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a computer-readable medium encoded with computer readable instructions executable by one or more computer processors to quantify image sets comprising a locked evolving algorithm. Namely, Defendant offers evolving automated medical image algorithms. See Exhibit F.
- 44. As recited in another portion of Claim 1 of the '879 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a step to generate the locked evolving algorithm including: obtaining a product algorithm for analysis of a first set of image data wherein said product algorithm is configured to recognize at least one entity within said first set of image data via a training mode that utilizes iterative input to an evolving algorithm obtained from at least one first user. Namely, Defendant offers an automated medical image analysis algorithm that recognizes entities, such as but not limited to lung nodes, in a first set of image data based on expert annotation. See Exhibit F.
- 45. As recited in another portion of Claim 1 of the '879 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a step of the training mode comprising: presenting a first set of said at least one entity to said user for feedback as to the accuracy of said first set of identified entities. Namely, Defendant evolves basic algorithms using training data from expert annotations of multiple sets of image data. See Exhibit F.
- 46. As recited in another portion of Claim 1 of the '879 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a step of the training mode comprising: obtaining said feedback from said user.

Namely, Defendant evolves basic algorithms using training data from expert annotations of multiple sets of image data. See Exhibit F.

- 47. As recited in another portion of Claim 1 of the '879 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a step of the training mode comprising: executing said evolving algorithm using said feedback. Namely, Defendant evolves basic algorithms using training data from expert annotations of multiple sets of image data. See Exhibit F.
- 48. As recited in another portion of Claim 1 of the '879 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a step of the training mode comprising: presenting a second set of said at least one entity to said user for feedback as to the accuracy of said second set of identified entities. Namely, Defendant evolves basic algorithms using training data from expert annotations of multiple sets of image data. See Exhibit F.
- 49. As recited in another portion of Claim 1 of the '879 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a step of the training mode comprising: obtaining approval from said user about said second set of entities; storing said evolving algorithm as a product algorithm. Namely, evolved algorithms are developed based on user input and are stored and used for future users. See Exhibit F.
- 50. As recited in another portion of Claim 1 of the '879 Patent, the system, at least in internal testing and usage, utilized by the Accused System uses, practices, or is a step of the training mode comprising: storing said product algorithm for subsequent usage on said image sets. Namely, evolved algorithms are developed based on user input and are stored and used for future users. See Exhibit F.

INFRINGEMENT OF THE '980 PATENT

51. Plaintiff realleges and incorporates by reference all of the allegations set forth in the preceding paragraphs.

- 52. In violation of 35 U.S.C. § 271, Defendant is now, and has been directly infringing the '854 Patent, the '266 Patent, and the '879 Patent.
- 53. Defendant has had knowledge of infringement of the '854 Patent the '266 Patent ,and the '879 Patent at least as of the service of the present Complaint.
- 54. Defendant has directly infringed and continues to directly infringe at least one claim of the '854 Patent the '266 Patent, and the '879 Patent by using, at least through internal testing or otherwise, the Accused System without authority in the United States, and will continue to do so unless enjoined by this Court.
- 55. As a direct and proximate result of Defendant's direct infringement of the '854 Patent the '266 Patent ,and the '879 Patent, Plaintiff has been and continues to be damaged.
- 56. By engaging in the conduct described herein, Defendant has injured Plaintiff and is thus liable for infringement of the '854 Patent the '266 Patent ,and the '879 Patent, pursuant to 35 U.S.C. § 271.
- 57. Defendant has committed these acts of infringement without license or authorization.
- 58. As a result of Defendant's infringement of the '854 Patent the '266 Patent, and the '879 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendant's past infringement, together with interests and costs.
- 59. Plaintiff will continue to suffer damages in the future unless Defendant's infringing activities are enjoined by this Court. As such, Plaintiff is entitled to compensation for any continuing and/or future infringement up until the date that Defendant is finally and permanently enjoined from further infringement.
- 60. Plaintiff reserves the right to modify its infringement theories as discovery progresses in this case; it shall not be estopped for infringement contention or claim construction purposes by the claim charts that it provides with this Complaint. The claim chart depicted in Exhibit B is intended to satisfy the notice

requirements of Rule 8(a)(2) of the Federal Rule of Civil Procedure and does not 1 represent Plaintiff's preliminary or final infringement contentions or preliminary or 2 final claim construction positions. 3 **DEMAND FOR JURY TRIAL** 4 61. 5 6 7 8 9 10 to, those sales and damages not presented at trial; 11 12 13 14 15 16 17 18 19 20 21

Plaintiff demands a trial by jury of any and all causes of action.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for the following relief:

- a. That Defendant be adjudged to have directly infringed the '854 Patent and the '879 Patent either literally or under the doctrine of equivalents;
- b. An accounting of all infringing sales and damages including, but not limited
- c. That Defendant, its officers, directors, agents, servants, employees, attorneys, affiliates, divisions, branches, parents, and those persons in active concert or participation with any of them, be permanently restrained and enjoined from directly infringing the '854 Patent the '266 Patent, and the '879 Patent;
- d. An award of damages pursuant to 35 U.S.C. §284 sufficient to compensate Plaintiff for the Defendant's past infringement and any continuing or future infringement up until the date that Defendant is finally and permanently enjoined from further infringement, including compensatory damages;
- e. An assessment of pre-judgment and post-judgment interest and costs against Defendant, together with an award of such interest and costs, in accordance with 35 U.S.C. §284;
- f. That Defendant be directed to pay enhanced damages, including Plaintiff's attorneys' fees incurred in connection with this lawsuit pursuant to 35 U.S.C. §285; and
- g. That Plaintiff be granted such other and further relief as this Court may deem just and proper.

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