

**UNIVERSITY - INDUSTRY  
SPONSORED RESEARCH AGREEMENT**

Northeastern University, a non-profit Massachusetts institute of higher education having a principal place of business at 360 Huntington Avenue, Boston, Massachusetts 02115 (“University”) and Pymetrics, Inc., a corporation organized under the laws of Delaware having a principal place of business at 102 Madison Ave, 5<sup>th</sup> Floor, New York, NY 10016 (“Sponsor” or “Pymetrics”) are entering into this Sponsored Research Agreement (“Agreement”), effective as of the date of the last signature below (“Effective Date”), in order to conduct fundamental scientific research for the advancement of science.

In consideration of the foregoing premises and the mutual covenants set forth below, the parties agree to the following:

**1. Research Project**

1.1. The Research Project, entitled Audit and Data Sharing Protocol, is described in Exhibit 1 to this Agreement, which is incorporated herein by this reference. The Research Project will be conducted by University under the direction of Christo Wilson (“Principal Investigator”). Sponsor’s Technical/Scientific Representative will be Kelly Trindel. The manner of performance of the Research Project will be determined solely by the Principal Investigator. If the named Principal Investigator is no longer employed by University, the parties will cooperate in good faith to identify a mutually acceptable replacement or, if a satisfactory replacement cannot be identified, terminate the Agreement in accordance with its terms.

1.2. The Research Project will begin on March 26, 2020 and, unless earlier terminated as provided in this Agreement, conclude on July 31, 2020 (the “Completion Date”).

1.3. As used in this Agreement, “Proprietary Information” means any disclosed written information and/or Data, marked in either case as proprietary, or any disclosed non-written information and/or Data, which the disclosing party identifies at the time of disclosure as proprietary, and reduces to writing and transmits to the receiving party within thirty (30) days of the non-written disclosure. Notwithstanding the foregoing, “Proprietary Information” includes the Data, technical information, trade secrets, know-how and any source code disclosed by Sponsor in relation to its model building process as further described in the SOW. Proprietary Information will not include any disclosed written information or data developed as part of this Research Project, except as provided in Section 4.3.

1.4. Data provided by Sponsor to University in furtherance of the Research Project (“Data”) shall be de-identified and shall not be used for any other purpose than those contemplated herein. University will not knowingly take any action that will enable re-identification of any Data subject. No third party may process or receive Data without the written consent of the data provider. University shall (1) store all Data received under this Agreement using encrypted and password protected devices; (2) maintain a list of all members with access to Data, as well as a log of such access, (3) restrict access to team members on a need to know basis and (4) destroy Data in all formats from all locations in both physical and digital formats, as relevant, once the purpose is achieved or the project is abandoned - whichever is earlier in time. University shall, and shall ensure Principal Investigator and its research team, delete the Data within 24 hours from the Completion Date.

1.5. The Principal Investigator must agree to a non-compete clause before beginning the Research Project.

1.6. The Parties agree that no third-party processing shall be done without executing a Data Processing Agreement.

**2. Payment**

2.1. Sponsor will pay University a total of One Hundred Four Thousand Four Hundred Sixty Five dollars (\$104,465.00) for the Research Project as follows:

- a. Thirty Four Thousand Eight Hundred Twenty One dollars and Sixty Eight cents (\$34,821.68) upon execution of the Agreement;
- b. Thirty Four Thousand Eight Hundred Twenty One dollars and Sixty Eight cents (\$34,821.66) on April 30, 2020; and
- c. Thirty Four Thousand Eight Hundred Twenty One dollars and Sixty Eight cents (\$34,821.66) within thirty (30) days of the “Completion Date”.

2.2. All payments will be made payable to “Northeastern University” with reference to the Principal Investigator and Agreement No: C-202034 and will be sent to:

**Via Mail or Courier:**  
Northeastern University,  
Attn: Director,  
Research Finance  
360 Huntington Avenue, 540-177  
  
Boston, MA 02115, U.S.A.

**Via Wire Transfer:**  
Bank of America  
100 Federal Street  
Boston, MA 02110  
Routing No.:  
Acct. No.:

- 2.3. University will retain title to any equipment purchased with funds provided by Sponsor under this Agreement.
- 2.4. If this Agreement is terminated prior to the Completion Date then Sponsor will pay all reasonable costs and non-cancelable obligations incurred by University as of the date of termination.

**3. Publicity**

3.1. Neither party shall use the other party’s name, trademarks, or other logos in any publicity, advertising, or news release without the prior written approval of an authorized representative of that party. The parties agree that each party may use factual information regarding the existence and purpose of the relationship that is the subject of this Agreement for legitimate business purposes, to satisfy any reporting and funding obligations, or as required by applicable law or regulation without written permission from the other party. In any such statement, the relationship of the parties shall be accurately and appropriately described.

3.2 Notwithstanding anything set forth in this Section 3, University hereby grants Sponsor the right to use University’s name, trademarks or other logos in an initial press release statement regarding the existence and purpose of the relationship that is the subject of this Agreement (“Press Release”), which may be distributed and shared on Sponsor’s website, associative social media accounts, and other legitimate marketing channels for marketing purposes. Sponsor shall additionally be permitted to share factual information regarding the existence and purpose of the relationship that is the subject of this Agreement with legitimate journalistic entities for reporting purposes.

**4. Publication and Reports**

4.1. University will furnish Sponsor with a copy of any proposed publication or presentation of the final report at least thirty (30) days before submission of such proposed publication or presentation, or at least five (5) days before submission of any proposed abstracts, of the results of the Research Project to allow Sponsor to review such materials to identify any patentable inventions or any inadvertent disclosure of Proprietary Information. Sponsor may not edit the materials or limit dissemination of the research results in any other way. If negative findings are to be included in University’s final report, thirty (30) days before submission of any proposed publication or presentation or at least five (5) days before submission of any proposed abstracts, Sponsor reserves the right to take immediate action to begin remediation efforts and have any efforts to comply with recommendations be documented in such publications, presentations and/or reports of the Research Project. Sponsor shall send University its recommendations and notice of remediation efforts within the timeframes set forth herein for University to add the remediations that address any concern of the Research Project to any such publications, presentations and/or reports. If Sponsor decides a patent application should be filed, the publication or presentation will be delayed an additional thirty (30) days or until a

provisional patent application is filed, whichever is sooner. Following receipt of Sponsor's written request within the applicable review period, University will remove Sponsor's Proprietary Information as identified by Sponsor. If University does not receive a request from Sponsor within the specified review period, Sponsor will be deemed to have no objection and University will be free to publish such material.

4.2. Sponsor will maintain all such prepublication materials in confidence in accordance with Section 5 of this Agreement.

4.3. The Principal Investigator will furnish Sponsor periodic written reports on the progress of the Research Project as mutually agreed by the parties and reasonably consistent with applicable research standards. The Principal Investigator will prepare and submit, on behalf of the University, a Final Report to the Sponsor within sixty (60) days of the Completion Date. All such reports and any drafts and information provided by University to Sponsor under this Section 4 will be deemed University Proprietary Information subject to the confidentiality obligations and rights of Sponsor under Section 5.

4.4. Sponsor may request, at no obligation to the University, that the final report be formatted to meet the needs of diverse audiences, including AI researchers, I/O psychologist, HR analysts, Sponsor's current and prospective clients, and stakeholders. Thirty (30) days prior to the Completion Date, Sponsor may provide suggestions on a format for the final report. University shall have full and final editorial control over the content of all reports, provided, however, that the final report shall include the purpose, methods and findings of the Research Project.

## **5. Confidentiality**

5.1. Each Party will protect the Proprietary Information of the other party with the same degree of care with which it treats its own Proprietary Information, but not less than reasonable care, and will not disclose the other party's Proprietary Information to a third party without the prior written consent of the disclosing party. In addition to the Principal Investigator, University may disclose and/or permit the disclosure of the Proprietary Information of Sponsor to any University faculty member, employee, graduate student, post-doctoral fellow, and/or nonemployees of University who use funds, facilities or other resources of University or participate in University-administered research ("University Personnel") who have a need to know such Proprietary Information and who have been advised of the need to maintain the confidential nature of the Proprietary Information and are bound by confidentiality obligations substantially similar to those contained herein. The Principal Investigator will have the right to decline receipt of the Proprietary Information of Sponsor. Sponsor may disclose the final deliverable report contemplated under Section 4.3, in its entirety, for Sponsor's own purpose(s), provided, however, that Sponsor may not edit the final report in any manner.

5.2. The foregoing confidentiality obligations do not apply to Proprietary Information which:

- a. was known to the recipient prior to the disclosure hereunder;
- b. was received by the recipient without restriction from a third party who was not under an obligation of confidentiality to University, Sponsor or a third party regarding such information;
- c. is in the public domain at the time of disclosure hereunder or subsequently enters the public domain without the fault of the recipient;
- d. has been independently developed by personnel of recipient without access to such Proprietary Information, and recipient can substantiate any claim of independent development by competent proof; or
- e. is required to be disclosed by law, regulation or valid demand of a government agency (provided that the party required to disclose the Proprietary Information will provide prompt notice to the owner of the Proprietary Information so that such party can seek adequate protections).

5.3. Notwithstanding any provision in this Agreement, the obligations under this Section will terminate three (3) years after the Effective Date.

5.4. University will provide Sponsor with notice of all members of Principal Investigator's research team that have access to Sponsor's Proprietary Information, as well as any changes to that team.

5.5. University, Principal Investigator and its research team shall never use Data or Proprietary Information for anything other than this specific purpose of validating the model methodology as set forth in the SOW. Any use for any other project, even a continuation of this project outside of this Agreement, or use in candidate or employee evaluation, is prohibited.

## **6. Intellectual Property**

6.1. Each party shall retain all right, title, and interest in its respective technology and intellectual property first conceived or reduced to practice or fixed in a tangible medium by such party before the Effective Date and independent of such party's performance of this Agreement, together with all intellectual property rights in or to the foregoing ("Background Intellectual Property"). No right, title, or interest to either party's Background Intellectual Property shall transfer to the other party under this Agreement.

6.2. Sponsor will own all right, title and interest to intellectual property first conceived and reduced to practice and/or fixed in a tangible medium solely by Sponsor's personnel that relates to Sponsor's Proprietary Information or Sponsor Background Intellectual Property, together with any improvements, modifications or derivative works thereof made by either party either solely or jointly (and all intellectual property rights in or to the foregoing) ("Sponsor Intellectual Property"). University is performing basic, fundamental research and is developing a final report, as contemplated under Section 4.3. University and Sponsor will jointly own intellectual property first conceived and reduced to practice and/or fixed in a tangible medium jointly by University's and Sponsor's personnel during the term of and directly arising from the Research Project excluding improvements, modifications or derivative works of Sponsor Proprietary Information, Sponsor Intellectual Property or Sponsor Background Intellectual Property (and all intellectual property rights in or to the foregoing) ("Joint Intellectual Property"). University hereby grants to Sponsor a non-exclusive, royalty-free license to Project Intellectual Property, as defined below, and University's rights, title, and interest in Joint Intellectual Property solely for Sponsor's internal research and development. University will own all right, title and interest to intellectual property first conceived and reduced to practice and/or fixed in a tangible medium solely by University's personnel during the term of and directly arising from the Research Project, excluding Sponsor's Proprietary Information, Sponsor Background Intellectual Property or Sponsor Intellectual Property (or improvements, modifications or derivative works thereof and all intellectual property rights in or to the foregoing) included or incorporated therein ("Project Intellectual Property"). University will execute any documents reasonably requested by Sponsor to effect or perfect all rights, title, and interest of Sponsor under this Section 6.2.

6.3. University will notify Sponsor of any Project Intellectual Property and Joint Intellectual Property promptly after Principal Investigator submits a written, complete invention disclosure to University's Center for Research Innovation. Sponsor shall have the right to elect a first option to negotiate a royalty-bearing, limited-term license to University's Project Intellectual Property and Joint Intellectual Property for exploitations other than those described or permitted under Section 6.2 ("Option") by providing a written election to University's Center for Research Innovation within thirty (30) days of University's notification of any Project Intellectual Property or Joint Intellectual Property under this Section.

6.4. Upon written election of the Option, Sponsor will have ninety (90) days to negotiate and execute a license subject to the University Patent Policy and University's compliance with applicable provisions of the Bayh-Dole Act. If the parties fail to reach a mutually acceptable license agreement within the 90-day period, Sponsor's Option rights will expire.

## **7. Termination**

7.1. Either party may terminate this Agreement upon ninety (90) days prior written notice to the other.

7.2. In the event that either party hereto commits any material breach of any terms or conditions of this Agreement, and also fails to reasonably remedy such breach within sixty (60) days after receipt of written notice de thereof, the non-breaching party may, at its option and in addition to any other remedies that it may have at law or in equity, terminate this Agreement by sending notice of termination in writing to the other party to such effect. Termination will be effective upon receipt of such notice.

7.3. Termination of this Agreement by either party for any reason will not affect the rights and obligations of the parties accrued prior to the effective date of termination, except insofar as Sponsor's failure to make timely payments under Section 2 will cause Sponsor to forfeit its Option rights.

7.4. Any provisions of this Agreement that by their nature extend beyond termination hereof will survive such termination.

7.5. Upon expiration or termination of this Agreement, the receiving party shall cease use of all Proprietary Information furnished hereunder and shall, upon written direction of the disclosing party, return to the disclosing party, or destroy, all such Proprietary Information, together with all copies made thereof by the receiving party. Upon request, the receiving party shall send the disclosing party written confirmation of the destruction or return of all Proprietary Information delivered hereunder. Notwithstanding the foregoing, Proprietary Information in the form of (i) information stored on back-up media for purposes of disaster recovery in the ordinary course of business that is subject to destruction in due course, and (ii) residual or latent data such as resulting from deleted files, automatically created temporary files, printer spool files, and metadata that is generally considered inaccessible without the use of specialized tools or techniques, may be maintained in accordance with the Receiving Party's general data back-up and archiving policy; provided, however, that such information and data shall not otherwise be used or copied by the Receiving Party. Counsel for the receiving party may retain one copy of such Confidential Information for archival purposes only, provided the receiving party notifies the disclosing party in writing and provides the name, firm name and address of such counsel.

## **8. Independent Contractor**

8.1. In the performance of all services hereunder, University will be deemed to be and will be an independent contractor, and its employees will not be deemed to be employees of Sponsor.

8.2. Neither party or any of its employees is authorized or empowered to act as agent for the other for any purpose and will not on behalf of the other enter into any contract, warranty, or representation as to any matter. Neither party will be bound by the acts or conduct of the other.

## **9. Indemnity; Liability; Limitation of Liability; Disclaimer of Warranties**

9.1. University will not be responsible or liable with respect to any subject matter of this Agreement under any contract, negligence, strict liability or other theory for any indirect, incidental, special or consequential damages including, but not limited to, loss of revenues and loss of profits.

9.2. University's liability to Sponsor for any claim related to or arising from this Agreement or the relationship created by this Agreement will be limited to the amount paid or to be paid by Sponsor to University.

9.3. University will use reasonable efforts, consistent with its mission and in accordance with generally accepted professional standards as described in this Agreement, to perform the Research Project. UNIVERSITY MAKES NO GUARANTEES, REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ANY IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT OF INTELLECTUAL PROPERTY, OR SPECIFIC RESEARCH RESULTS.

**10. Notices**

Notices, invoices, and communications hereunder will be deemed made if given by overnight courier or by registered or certified mail, postage prepaid, and addressed to the party to receive such notice, invoice, or communication at the address given below or such other address as may hereafter be designated by notice to the other party in writing:

	<u>Research communications and reports</u>	<u>Notices with respect to any rights or obligations</u>
University recipient:	Christo Wilson 360 Huntington Ave, 635 ISEC Boston, MA 02115-5000 Phone: 617-373-8802 c.wilson@northeastern.edu	Eva Pasadas Director, Grants & Contracts Northeastern University 360 Huntington Avenue, 540-177 Boston, MA 02115-5000 Phone: (617) 373 5600 NU-RES@northeastern.edu
Sponsor recipient:	Kelly Trindel 102 Madison Ave., 5th Fl. New York, NY 10016 kelly@pymetrics.com	Legal Department 102 Madison Ave., 5th Fl. New York, NY 10019 legal@pymetrics.com

**Notice given pursuant to this Section will be effective as of the date of receipt of notice.**

**11. Governing Law and Forum**

This Agreement will be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts without reference to its choice of law rules. Venue for any dispute related to or arising out of this Agreement or the relationship of the parties will be exclusively in the state or federal courts located in Suffolk County, Massachusetts, and the parties (for themselves and their successor and assigns) irrevocably consent to the jurisdiction and venue of such courts for such purpose.

**12. General Provisions**

12.1. This Agreement may not be assigned without the prior written permission of the other party.

12.2. Entire Agreement – This Agreement contains the entire and only agreement between the parties respecting the subject matter hereof and supersedes all other agreements between the parties on the subject of this Agreement, including, but not limited to, non-disclosure agreements between Sponsor and University and/or Principal Investigator. Should processing of this Agreement require issuance of a purchase order or other contractual document, all terms and conditions of said document are hereby deemed deleted in their entirety. This Agreement may not be amended in any manner except by an instrument in writing signed by the duly authorized representatives of each of the parties hereto.

12.3. Export Control Regulations – Sponsor agrees that it shall comply with all applicable export control regulations of the United States of America. Sponsor shall provide written notice to University if Sponsor intends to disclose any export controlled information or technology to the University. Such notice will include the proper export classification and a reference the applicable export control laws and regulations. Export controlled information shall be labeled as “export controlled” with a reference to the applicable U.S. laws and regulations. The University reserves the right, in its sole discretion, to refuse or accept such information or use it in performance of the Research Project. Sponsor shall indemnify and hold harmless the University against any claims, damages, losses or costs arising out of Sponsor’s breach of this Section. Notice required under this section shall be sent to Principal Investigator, with a copy to the University’s Office of Research Enterprise Services.

12.4. *Force Majeure* – Neither party will be responsible to the other for failure to perform any of the obligations imposed by this Agreement where such failure is due to a “force majeure” event, including (without limitation) fire, flood, explosion, severe weather, earthquake, failure or destruction, in whole or in part, of machinery or equipment, failure of supply of materials or power, governmental interference, civil commotion, war, labor disturbance or shortage, or any other cause beyond its reasonable control.

**IN WITNESS WHEREOF**, the parties have caused these presents to be executed in duplicate as of the day and year first above written.

**By an Authorized Official of  
Pymetrics, Inc**

**By An Authorized Official Of  
Northeastern University**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

By: \_\_\_\_\_  
Name: Eva Pasadas  
Title: Director, Contracts & Grants  
Date: \_\_\_\_\_

**Agreement Read and Understood By:**

  
\_\_\_\_\_

Christo Wilson

**EXHIBIT 1****RESEARCH PROJECT****Audit & Data Sharing Protocol pymetrics &  
Christo Wilson**

Unless otherwise defined below, all defined terms shall have the meaning assigned to them in the Agreement.

**SCOPE OF COLLABORATION**

1. University will evaluate the Sponsor's predictive system for fairness, as defined by two key conditions:
  - a. ○ Any model that is deemed deployment-ready yields an impact ratio of no less than 0.8 when comparing "pass rates" of gender or racial groups AND
  - b. ○ Any model that cannot be de-biased to meet the 4/5th rule is not deployed
2. University will test the full extent of the "de-biasing" capability of the Sponsor's system by conducting experiments with "synthetic" training data:
  - a. Experimental training data samples can be curated from Sponsor's labeled reference population to be homogenous (e.g., 100% white men) and/or nearly homogenous (e.g., 90% white men)
3. University will provide feedback to the Sponsor's team on the results of this inquiry, including:
  - Any shortcomings or concerns in Sponsor's approach
  - An overview of auditing methods
  - Suggestions for potential improvements

**TIMELINE OF EVENTS****1. Phase I: initial materials**

- i. Sponsor supplies auditors with candidate and employer account access to experience interfaces
- ii. Sponsor supplies auditors a client tech validation report for a sample model
  - includes: data pipelines & outlier removal, debiasing, model building, assumptions (automated & manual), metrics, best practices

**2. Phase II: on-site model audit (data team)**

- Principal Investigator shall either (i) come to Sponsor's place of business for a day or (ii) through a video conference to observe a model being built
- Sponsor will review development environment with Principal Investigator, as well as data scientist notebooks and location of source code (Principal Investigator can review in detail later)
- Sponsor will provide auditors five hold-out sets containing anonymized, real candidate data for bias testing (in lieu of synthesized data)
- Principal Investigator will work with Sponsor to extract/query Sponsor database to verify a random draw from our population
- Principal Investigator will receive results with demographic information for fairness validation

**3. Phase IIb: on-site model audit (IO team):**



- Sponsor will walk auditors through the internal review process conducted by the IO analytics team, which typically occurs after the model has been live for 12 months

#### 4. Phase III: off-site exploration

- Sponsor will provide access to Source Code in dev environment
- Sponsor will share the model development environment notebook used to build the sample model

#### 5. Phase IV: check-in

- following the conclusion of on-site and off-site research, Principal Investigator and Sponsor will set time to discuss key findings
- while University maintains rights to publish any findings, Sponsor will be informed of the main conclusions and any associated recommendations

### DETAILS OF DATA SHARING

#### 1. Data

##### 1.1. Data summary

- a. Sponsor will provide access to a siloed AWS instance, which will include
  - 1.1.a.1. Read-only access to databases
  - 1.1.a.2. The current model-building template
  - 1.1.a.3. Source code for model building and bias reduction techniques
- b. Access will be granted via VPN, and will be revoked at the termination of this Agreement
  - 1.1.b.1. This is highly sensitive information and will require signed legal documentation for all individuals who receive limited access
- c. Pymetrics Sponsor will provide all data necessary to a client model
- d. Pymetrics Sponsor will provide target cross-validation and bias metrics achieved for the initial model

##### 1.2. b. Datasets

- a. Principal Investigator will have read-only access to the database. To replicate a single model, Sponsor will provide the exact datasets required
- b. Top-performing employees (“incumbents”), de-identified and preprocessed (N ~ 50-200)
- c. Generic baseline used to build the original model, de-identified and preprocessed (N ~ 10000)
- d. Generic bias-testing set used to build the original model (N ~ 8000), preprocessed with the following demographics:
  - 1.2.d.1. Gender (M/F, evenly distributed)
  - 1.2.d.2. Ethnicity (Asian, Black, Hispanic/Latino, White, Two or More Groups, evenly distributed).

##### 1.3. c. Pre-processing

- a. The data standardization process is based on a much larger dataset; the data shared will, therefore, be preprocessed and normalized.