# Neural Network for composing music

**REQUEST FOR PROPOSAL**

***Musical Neural Network***

***03/20/2018***

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# 1. Executive Summary

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| a. | Describe the proposed system you wish to undertake. Is it a new site?  **Using TensorFlow we will be creating a neural network that can analyze and produce music.** |
| b. | What problems will this technology project solve or what new capabilities will it provide for your organization?  **It will open doors for any musician looking for unique musical inspiration.** |
| c. | If you have made a decision beforehand, indicate whether this site relies on a database to display information or will be "static" HTML.  We will be mostly working with Python as Tensorflow is written in it. |
| d. | Include a brief summary of the environment in which the hardware / software / services will operate.  **We will create a Github repository for easy access and easy workload management.**  **No special hardware is required.**  **Software – Tensorflow and other deep learning libraries.** |

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# 2. Proposed Timeline

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| This section of the Request for Proposal should provide a description of what each responding organization’s proposal should contain. It should also include a timeline within which all proposals must be submitted. Any requirements that must be included in each proposal should be described in detail in this section of the RFP |  |
| (Please indicate the timeline you expect vendor to adhere to) |  |
| 1. Develop RFP process (forward email address for questions on RFP). 2. RFP release date. 3. Submission of questions on RFP. 4. Notification of Intention to bid. 5. Answers to questions emailed to all bidders. 6. Proposals due. 7. Finalist interviews. 8. Proposal award date. 9. Initial meetings. 10. Drop-dead Date (no new concepts/functionality added). 11. Beta site launch (if web project). 12. Proposed site launch (if web project). |  |
| Make sure your RFP sets out a schedule for the proposal and development process.  Below, an example of the proposal guidelines is provided |  |
| June 1, 2015 - Release and distribution of RFP June 15, 2015 - Deadline for vendors to submit written questions and/or non-mandatory  notice of intent June 17, 2015 - Questions with written answers provided to all interested vendors June 30, 2015, 9:00 am - deadline for submitting proposals July 10, 2015 - Finalists notified July 13, 2015 to July 17, 2009 - Finalist interviews July 22, 2015 - Vendor selected July 31, 2015 - Vendor signed |  |

# 3. Project Purpose and Description

The purpose of the proposed system is to create a neural network that we can train to recognize/analyze sheet music – Looking at the types of notes used in what way and the pauses between notes. The neuralnet can then generate its own unique music. Will it be capable of producing music indistinguishable from a human composer?

# 4. Project Scope

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| While the project description provides with general information about the project, this part of the Request for Proposal template includes details of what exactly is required for the project as well as what is not included as part of the project. In addition to the description of the project, this section of the RFP template details any additional work required to achieve the desired result (i.e. research, coding, etc.). |
| The scope of this project includes all design, development, coding, licensing, and hosting of new web site. |

5. Background of Proposed System

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| Tell vendors about your organization. Provide links to information on your existing Web site, if applicable. When was your organization founded? How many staff members does your organization have? |

6. Audience

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| The target audience will have to be music composers as they are the ones who create music, it will also be music directors and musicians so that they are familiar with the program. In this case the program will be developed in order to assist them in training it to be able to analyze music sheets. After having done that the program will generate music based on the notes that it found on the sheets. |
| There is a need for a project sponsor for each and every project and they might have different needs compared to the ones that we will be focusing on, that is why after each and every phase or step they need to see so that if there are changes to be made we get on to it rather than when we just show them the final product. Depending on the type of needs they suggest, then it can be arranged if we can be able to do it or not. |
| The site will be available online so that if the general public want it, they can be able to download it so that it is available for their use. Logins may be required as they are an essential component in the creation of a program. They should give permission based on the user/ role since a member cannot have access to the information that the admin has, this works hand in hand with the security of the information a there are cases where there is sensitive information which is only available to the admin and not the members. |

7. Tools and Functionalities

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| 1. Essential components: are there certain features that are essential to any proposal you will consider? |
| 1. Non-essential components: Are there other features of your site that you would like but are not essential to submitted proposals? |

8. Reporting Needs

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| 1. If the site is database driven, what types of information will you regularly need to draw from it? |

# 9. Proposed System Specification

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| 1. Design parameters |
| 1. Accessibility/Usability 2. Usability testing mid-stream will validate navigation choices |
| 1. Platform, if applicable 2. Is this a redesign of a current site? If so, in what language is the current site built? (ex: cold fusion, ASP, PHP, Dreamweaver) 3. On what format is the current site hosted? (Ex: NT, UNIX, Apache) |
| 1. Ecommerce 2. Are you using an Ecommerce system now? 3. If so, what are you using? |

# 10. Available technology resources/integration issuers

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| There is a variety of tools that can be connected to our project. It will be up to us and what our needs are if we are choose which system we can connect to in order to complete our project. There is what we call Magenta, Deep jazz and BachBot to mention a few. For example, there is a Magenta which is Google’s open source deep learning music project but the challenge is that it can only generate a single stream of notes. If it were to be added to the project then it would be simpler because it would be the case of just editing the existing system and make it suit our needs as the whole group. |
| Neural networks are often seen as a representation of intentional knowledge of intelligent database systems. Databases allow for easy and handy definition and administration of neural networks depending on the predefined database types. Choosing between the existing and new database depends on the specialized network types. The database contains the network that is being used and the knowledge base then that all goes to the user interfaces. |
| Our proposed project will allow for the transformation uses for e-commerce. The use of neural networks boost the e-commerce enterprises and provide superior efficiency and automation. For this project we might as well have our very own e-commerce system in that way, there isn’t much competition as it will be the only focus we have. The use of e-commerce systems allows for the system to be well known because of how the internet is the new communication platform. |

# 11. Budget & Cost estimates

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| This section of the Request for Proposal should explain the proposals regarding budget items. Often, an RFP will ask to list pricing a certain way or describe what exactly should be included in the pricing for the proposal. This may describe specific items to include or exclude depending on the project or task. RFP should identify all relevant capital and revenue expenditure costs. |
| 1. Provide a budget range so your solutions providers can scale their proposal accurately. |
| 1. Indicate whether your organization is ready to start work, or you have to raise money to begin the project. If you do need to raise money, vendors may help you describe the project in order to maximize your chances of receiving funding. |
| The project cost break down should consider(but not limited to) the following as applicable:   * + *Project Initiation and Planning*   + *Market Research*   + *Site/Database Development*   + *Site/Database Testing*   + *Site/Database Deployment*   + *Site/Database Hosting*   + *Hardware Module Cost*   + *Software Module Cost*   + *Software License Cost – Server*   + *Software License Cost – Desktop*   + *Training Cost*   + *Testing Cost*   + *Conversion Cost*   + *Upgrade Cost*   + *Preventive Maintenance Cost*   + *Disaster Recovery and Data Backup Costs*   + *Support Cost*   + *Implementation Cost*   + *Documentation Cost*   + *Marketing Cost (to promote use of services)*   + *Travel Cost*   + *Consultancy Services Cost*   *In case of licensing, proposal should indicate costs separately for:*   * *Corporate license* * *Individual license, for each of the items/modules>* |

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| **Cost Item** | **QTY** | **Unit Cost** | **Total Cost** | **Maintenance first Years** | **Maintenance 5 years** | **Maintenance in %** |
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| **TOTAL COST** |  |  |  |  |  |  |

# 12. Proposal Evaluation Criteria/ Format for proposals

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| Here the Request for Proposal should describe exactly how proposals will be evaluated. It should include a list of criteria that will be reviewed and describe what is suitable for each of the criteria. The more detail that can be included, the more thorough and complete the proposals should be. This RFP template provides an example of the proposal evaluation criteria below. |
| 1. Executive Summary |
| 2. Technical Volume   1. Development process: explain the process you will follow to develop proposed system, including major milestones and evaluation. 2. Address usability standards and testing. 3. Address any important technology information and specifications used in your solution (languages, platform, etc.). |
| 3. Management Volume   1. Organizational structure: communication process; including lines of reporting and any special tools used. Did they educate us on how they will complete our project, the team that will be working on it, and the deliverables that will be provided? 2. Schedule of deliverables; include major milestones and testing proposal. |
| 4. Budget Volume   1. Break down cost by production hours, tools and functionalities. 2. Maintenance and support: identify any costs that should be assumed as part of the site and ongoing costs for maintenance and support we need in the future. 3. Hosting: identify whether we must or are highly encouraged to host with your company. If hosting is provided as an option or requirement, provide pricing options. 4. Training and Style Guide: identify costs to train our staff to use site tools and provide a style guide. 5. Other charge areas: Please identify whether there will be other expenses, consulting fees, future work, etc. to complete this project. |
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