

Press release

Freelancer.com & LMI announce winners of NASA Risky Space Business Challenge

Crowdsourcing challenge provides NASA with six new, innovative solutions to risk prediction tools

SYDNEY, Australia - 11 May 2022 - [Freelancer.com](https://www.freelancer.com) (ASX: FLN, OTCQX: FLNCF), the world's largest freelancing and crowdsourcing marketplace by number of users and jobs posted, today announced the winners of the Risky Space Business Challenge run in collaboration with government-focused consultancy LMI, on behalf of NASA.

Announced on 22 October 2021, the challenge gave participants 15 weeks to develop an artificial intelligence (AI) and machine learning (ML) algorithm that can collect and analyze data from past projects in any organization to allow teams to predict, prevent, and prepare for different risks or pitfalls involved in the project at hand.

The challenge received 27 submissions offering NASA new and innovative solutions to support existing risk prediction tools. Of those entries, six projects came out on top and were awarded a share of US\$50,000 as evaluated by LMI's subject matter experts and a panel of NASA experts.

Winners - Top Solutions

- **First Place - winning US\$20,000:** [Christopher Milo](#) (Team Lead) from Ashburn, Virginia, United States, supported by team members Zach Pryor, Benjamin Walzer, Daniel Mask, Jacob Walzer, Sean Mellott.

The winning solution employed algorithms programmed in Python that leveraged open-source ML and Natural Language Processing (NLP) models to train text classifiers on historical NASA documents to recognize language patterns relating to risk.

- **Second Place - winning US\$10,000:** [Richárd Ádám Vécsey Dr.](#) (Team Lead) from Budapest, Hungary, supported by his team member Axel Ország-Krisz Dr.

The solution predicts risks in two different ways from project-related text documents: 5x5 risk severity-likelihood matrix and a list of risk categories. It contains three different neural network models - one predicts the chance of the occurrences of each unique risk category in the text, the second predicts severity and likelihood values for each risk, the third recognizes whether the text contains any risk or not.

- **Third Place - winning US\$5,000:** [Thomas Ilin](#) from Thornhaugh, United Kingdom.

The proposal focuses on a solution architecture that can make a truly 'Game Changing' difference to the way project risks are identified and predicted by NASA, across all of its directorates and projects.

“The winners of NASA's Risky Space Business Challenge demonstrate how crowdsourcing can provide organizations with exciting and novel approaches to complex problems. Each and every entry we had submitted provided an intriguing solution, but the six winners produced some truly outstanding work,” **said Freelancer.com's Chief Executive Matt Barrie.**

Winners - Innovation Solutions:

- **Risk Prediction - winning US\$5,000:** [Alexander Poplavsky](#) from Krakow, Poland.

The proposed solution comprises several AI text processing models and related algorithms to estimate the unknown project risk based on the historical Lessons Learned data and a target Project Plan information. The risk is estimated following the standard NASA classification: cost, schedule, technical, and programmatic affinities with green, yellow and red levels.

- **Data Extraction - winning US\$5,000:** [Petra Galuscakova](#) from Drazkovce, Slovakia.

The solution reformulates the problem of predicting the project risks to the problem of searching similar earlier NASA projects. It focuses on creating a searchable index of the materials, such as lessons learned, presentations and proposals, used in the earlier projects.

- **Data Formatting - winning US\$5,000:** [Dean Koucoulas](#) (team lead) from Etobicoke, Canada, supported by team member Snezana Kirova.

The solution implemented techniques in Natural Language Processing in Python to compare the information within project documents with a risk-based lexicon/dictionary. The information is then ultimately categorized according to what Condition, Departure, Asset, and Consequence best match the risk details, drawing upon classification schemes inherent in the NASA Continuous Risk Management Process.

“The challenge proved the value of crowdsourcing through the identification of numerous unique approaches that combine text extraction and analytics with novel risk prediction methods and algorithms,” **said Brian Tonge, Principal, Advanced Analytics & AI at LMI.** “The collective solution portfolio supplies NASA’s engineers, program managers and analysts with an array of options that can be further refined and deployed to achieve an advanced risk prediction capability that can transform program management and decision-making.”

For those interested in participating in future challenges, please visit Freelancer.com’s [NASA Open Contest](#) webpage for more information.

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About Freelancer.com

Twelve-time Webby award-winning Freelancer.com is the world’s largest freelancing and crowdsourcing marketplace by total number of users and projects posted. More than 55 million registered users have posted over 21 million projects and contests to date in over 2,000 areas as diverse as website development, logo design, marketing, copywriting, astrophysics, aerospace engineering and manufacturing. Freelancer owns Escrow.com, the leading provider of secure online payments and online transaction management for consumers and businesses on the Internet with over US\$5 billion in transactions secured. Freelancer also owns Freightlancer & Loadshift, enterprise freight marketplaces with over 550 million kilometers of freight posted since inception. Freelancer Limited is listed on the Australian Securities Exchange under the ticker ASX:FLN and is quoted on OTCQX Best Market under the ticker FLNCF.

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