

NEWS

Tandon Students Merge Healthcare & Tech to Win NYU Healthcare Makerthon

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The four winning teams featured NYU Tandon students, who brought their technical expertise to the table.

Four teams featuring students from the NYU Tandon School of Engineering won the **3rd Annual NYU Healthcare Makerthon**, garnering over \$10,000 in prize money to fund their innovative ventures. The annual event, sponsored by the [NYU Entrepreneurial Institute](#) and NYU Langone Health, challenges students from across NYU schools and disciplines to form collaborative, multidisciplinary teams that address some of the major issues in healthcare today.

Wielding technical and engineering expertise, the five NYU Tandon students worked tirelessly over the 48-hour event towards developing solutions to five different healthcare areas, including tools for clinical nursing care, wearable devices for geriatric patients, real-time data visualization tools for electrocardiogram (ECG), digital tools for telehealth, and building nutrition games to curb childhood obesity.

The NYU Healthcare Makerthon has been the starting ground for many student ventures and startups. In his keynote address, [NYU President Andrew Hamilton](#) hailed the past successes of teams formed at the Makerthon, including **Levitas** — the healthcare venture developed by NYU Tandon student Amar Seoparson that hopes to reduce patient falls with wearable devices. ([Levitas won the fourth annual NYU-Yale Pitchoff](#) in July, and is currently testing the product in pilot programs.)

This year’s winners — CardiaCare, Gware, HealthHuddle, and Heart2Heart—merged data, technology, medicine, and healthcare practices to improve and streamline patient care and hospital functions.

CardiaCare

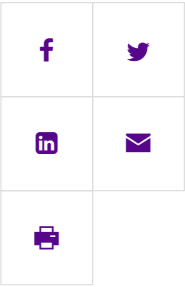
CardiaCare helps monitor heart problems and changes to heart health in geriatric patients, and can alert a patient’s doctor of any problems, explained team member Gregory Livschitz, a master’s student in computer science at NYU Tandon. “The team included two medical students and two undergraduates, who already were working on this idea, but they needed someone with technical expertise to work with implementation and software,” Livschitz said. “With our award, we hope to make a minimum viable product that we can eventually bring to market.”

Gware

Computer science doctoral student Jiang Yu’s background in machine learning and Internet of Things was instrumental in the development of Gware’s wearable device system. Multiple sensors collect patient data, Yu explained, which are transmitted and analyzed through “prediction and decision-making systems that predict various dangers patients might be exposed to. It triggers alerts and even connects emergency medical services to geriatric patients.” Gware could be used to prevent dehydration, falls, and other accidents, Yu said.

HealthHuddle

Fellow computer science master’s student Andrew Dempsey translated his background in software development to creating the user interface for HealthHuddle — a digital dashboard that displays critical and timely information about hospital patients to nurses and doctors. “We’re a group drawn from across



NYU, including Tandon, Wagner, Stern, and Langone Health, but we all share an interest in developing a tool for clinical nursing care, to help reduce the level of chaos in often overwhelmingly busy hospital environments and help nurses achieve their ultimate goal: providing care for their patients,” Dempsey shared.



HealthHuddle team members Kerim Davis, Andrew Dempsey (Tandon), Danny Silk, Sushant Thomas, and Sabina Braverman.

Heart2Heart

Also centered on streamlining data analysis, Heart2Heart aims to “optimize the ECG interpretation learning process by creating a machine-learning program to analyze data, and generate a more intuitive, 3D representation,” said team member and computer science master’s student, Bhavana Ramakrishna. Bhavana and NYU Tandon mechanical engineering student Austin Hunt worked with their Heart2Heart team members on revamping the current standard waveform report to strengthen medical professionals’ understanding the relation between the results and a patient’s physiological health.




Heart2Heart’s team represented five NYU schools at the Makerthon. From left, Jason Huo, NYU Entrepreneurial Institute Executive Director Frank Rimalovski, Anand Tyagi, Nupur Joshi, Bhavana Ramakrishna, and Austin Hunt.

The students all expressed their excitement about their awards, and what the future holds for their projects. “We’re thrilled that field experts see the same potential in our project as we do, and are willing to support us,” Bhavana shared. “We’re working with mentors from the NYU Entrepreneurial Institute to further develop our product and business model, so we can increase our chances of securing funding through grants and investments.”

Learn more about the [NYU Entrepreneurial Institute](#), and how they can help you develop your ideas into successful startups.

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