

Meemo-tec OG
Plüddemanngasse 39
8010 Graz
Austria

Application for the Global Training Program

The Start-Up

We are a young, encouraged team of three software engineers working on a mobile application which is capable to assist people who are suffering from the bipolar disorder.

We started working on this topic in spring 2015, when one of our co-founders came up with the initial idea of an autonomous early warning system for bipolar people.

In the next step we applied for a start-up funding at Science Park, an academic start-up incubator in Graz, where we could convince the jury from our business idea.

From now on we got an office space, support from renowned mentors and we were settled in the middle of the Styrian start-up scene where we could profit from the startup ecosystem.

We were able to obtain a funding for our product from AWS, the Austrian public funding service and we could even achieve the 2nd place in the *European Satellite Navigation Competition* in 2015.

In early 2016 the company meemo-tec was founded in order to further push the development of our product and to launch the first release in summer 2016.



The Team

Christian Pendl, MSc.

Co-founder and technical lead engineer for mobile App development and testing. Studied Telematics at University of Technology Graz with focus on information security and software development. He published several papers in the field of cryptography during his one semester student exchange program at ETH Zürich.

Ralph Gruber, MSc.

Co-founder and lead engineer for web development and data visualization. Studied Telematics at University of Technology Graz with focus on system on chip design and information security. He had been working for the semiconductor manufacturer Infineon for over four years as digital design engineer before he co-founded meemo-tec.

Manfred Weiss

Co-founder and lead engineer for algorithm design and big data analysis. Studies Telematics at University of Technology Graz with focus on bio-informatics and signal processing. He had been working in the field of software development for biomedical applications for over eight years.

Our Product

We develop a software for continuous and autonomous detection of the state of mental health in the context of the bipolar disorder, in other words manic-depressive disorders. Our software is running on a patient's smartphone and generates feedback that supports bipolar people and their social environment in their health self management.

We provide a solution that only requires a state-of-the-art smartphone. The core functionality is based on the observation of a person's everyday behavior, more specifically a person's change in behavior over time. Working habits, social habits, sport activities and much more are used to outline significant behavioral patterns. In order to do so the entire aggregate of sensor input data available on modern mobile devices are combined and analyzed using means of machine learning and statistics.

Problems We Solve

The major problem of bipolar people is their incapability to recognize risk stimuli, especially at the beginning of problematic courses, as well as poor competences for health self assessment. Our software allows an early detection of beginning episodes of mania and depression and offers psycho-educative feedback in order to encounter these upraising problems. As a result the likelihood of a severe course of disease drastically decreases.

The provided feedback sensitizes all affected parties for the risk stimuli and help them to develop individual coping strategies. The authorized social environment, like family members or close friends, get the opportunity to contribute their observations to the system and therefore experience a relieve of their own psycho-emotional stress, which influence them 24/7.

Partners

For the realization of this software we closely work together with the specialist outpatient clinic for bipolar affective disorders at the Medical University of Graz. Our software boosts the dialogue between patients - relatives & friends - and medical professionals in particular. The latter are provided with a computer generated health report, which enlightens individual problematic patterns of a patients every day life. In order to accelerate research in the field of affective disorders, we plan to grant research facilities access to our database. The goal is to avoid human tragedies and to reduce the impact on economics as well as on private and federal health insurance carriers.

Further Links

Homepage: www.meemo-tec.com

Product-Intro (german): <https://www.youtube.com/watch?v=yQ11iGrFcil>
