

# 2018 Augmented Reality Summer Internship



## About the Project

Augmented Reality is at the stage of becoming a mature commercial technology, attracting interest in a variety of industries. NGi Systems is partnering with UBB to drive innovation in this field in Cluj-Napoca.

<http://www.gartner.com/smarterwithgartner/top-trends-in-the-gartner-hype-cycle-for-emerging-technologies-2017/>

### Research Areas:

- 2D / 3D pattern recognition techniques (including OCR)
- 3D modelling techniques of real-world objects
- converting industrial 3D models into AR-friendly 3D models
- projection of modelled objects onto recognized targets with real-time tracking

### Direct Fields of Application:

We are primarily focused on the application of AR in Hospitality (customer experience enhancement and operational process optimization). We won a runner up prize for our proof concept AR solution at Restaurant Tech Live 2017 in the Tech Product of the Year awards and we are looking to further develop that solution for commercial use. You can read our blog post below:

<https://blog.nextmenu.com/2017/09/28/restaurant-tech-product-of-2017/>

Alternatively, we are open to support any specific student-driven initiative to apply the above research areas to other fields of application.

## What is Special about the Project

- **Special Field of Application**
- Hyped technology trend by the SmartPhone manufacturers (Asus ZenFone, iPhone 8, iPhone X).
- **Cool-Factor**
- You will work with cutting edge AR glasses and can show off your work very easily to anyone, gathering useful feedback and generating enthusiasm with the novelty of the concept.
- **Flexibility**
- Lightweight research and development equipment, no need to be stuck in a lab.
- **Professional Development Opportunity**
- This is not just an academic project but is directly supported and guided by a tech company.
- **Job and Career Opportunity**
- Working on this project gives you the chance to gain hands-on experience and can continue with a full time job after graduation.

## About Us

We are a team of young and ambitious techies driven by a desire to innovate and build cutting edge systems. With origins right here in Cluj, we traveled the world to work on many complex projects and award-winning solutions. We are bringing the knowledge and experience back home to coach the next generation of world-class techies.

Translating into Next Generation Interactive, our acronym is a testament of our design thinking mentality and our focus on fully integrated, end-to-end user experience. We are here to combine creativity with technology and make a real difference to simplify everyday activities that most people do. We build the Next Generation Systems.

## About You

You are passionate about virtual / augmented reality and 3D modelling. Your educational background needs to be paired with **discipline, critical thinking, problem ownership** and an ambition to accomplish new and unconventional things. Good time management and a structured work style is also needed along with a nerdy passion to experiment with new gadgets.

Specifically, you will need competence / experience in the following areas:

- familiarity with Android 5+, experience developing apps with Android Studio, interaction with the camera and gyros
- object oriented programming (layers of abstraction, isolation of code, OO design patterns, testing and dependency injection)

Nice-to-have knowledge / experience:

- basic 3D modelling knowledge (Catia, SolidWorks, AutoCAD, etc.)
- development with the Unity game engine
- familiarity with OCR techniques

## How to apply

- Send an email to [Daniel.Jecan@ngi.systems](mailto:Daniel.Jecan@ngi.systems) with the following:
  - CV
  - Why you think this project is interesting
  - The reasons that you think make you a suitable candidate for this summer internship
- Deadline for applications: 15th of April 2018
- Period: 2 or 3 months depending on availability. Minimum part-time (80 hours/month), preferably full time

