

BMW GROUP + QUT
DESIGN ACADEMY



APRIL 2023

Welcome
Program Updates
Feature Article
Briefings
Academy Achievements
External Collaborations

—
NEWSLETTER

BMW
GROUP



WELCOME



This year has begun with so much activity and momentum, which is very exciting. We are nearing the halfway mark and already we have progressed so much across all of our Programs, especially with our Internships and Special Projects Program. April was very much about progressing with our existing projects including progressing with our Internship students here and abroad as well as our Special Projects in Germany and the UK.

We continue to progress with various research opportunities that are of interest to both BMW Group and QUT. These involve exploring projects across logistics, robotics, VR, automotive human-machine interfaces and cutting-edge design thinking.

Finally, our external collaborations continue to grow. We are excited about our various growing partnerships including our collaboration with Brisbane BMW as we discuss exciting research projects with them that could explore interesting topics like user perceptions of electric vehicles and new interface technologies.

We look forward to exciting outcomes from all of our initiatives in the next couple of months.

Enjoy this month's newsletter!

Dr Rafael Gomez
Founder + Academy Lead

PROGRAMS



INTERNSHIPS

The Internship program focuses on Fostering Design Excellence. It offers high-performing QUT design students an opportunity to advance their learning through real-world projects, and provides a pathway for paid internship placements at BMW Group in Munich, Germany.

Impact Lab 4

This month our two Impact Lab 4 students, Jonghyun Hong and Aantra Shinde, kicked-off their projects. Both chose our BMW vehicle accessory design project, and coincidentally they also both chose the camping context for the project as well. They have presented their early concepts to us and we are positive that they will produce some interesting designs.

Academy Interns Initial Concepts

This month our four Academy interns presented their initial concepts to us and BMW Group staff in Munich. Max Malouf is completing our future autonomous supercar interactions project and shared his 3 ideas for future vehicles which are rented and accessible via a phone app. His first idea is an autonomous taxi with a gaming and movie lounge, suitable for long trips. His second concept is a traditional GT style supercar with autonomous and manual controls. His third concept challenges what a supercar is and looks at autonomising emergency vehicles and defining these as the new generation of supercars.

Finn Pohlner is working on our idealworks iw.hub packaging design project, also presenting 3 concepts which address design opportunities based on the current packaging and transport methods. Finn has been very

thorough in his research and early parts of his project, so we are confident that his final design will reflect this. Lastly, Olivia Caulfield and Weibo Ye are completing a BMW interactive billboard project alongside staff in Germany. Like our previous BMW projects, this one is also confidential so unfortunately we can't share much information, however, they have completed a lot in just a few weeks - filtering through a number of ideas, scenarios and directions before defining a direction for the project, which promises some interesting outcomes.

Games Design Capstone BMW Project

Our Games Design capstone unit students are also progressing very well with their project. We speak to them each week and discuss their progress and ideas, and we also hosted a brainstorm session with them to help generate some ideas and explore concepts for each of the deliverables in the project. They will be sharing some more refined ideas to us soon as they prepare to submit the first part of the project to their QUT teaching staff.



RESEARCH

The Research program centers on Exploring Knowledge Horizons. We have initiated a progressive research agenda for PhD and MPhil students to conduct world-class research through the Academy.

Future Research

We continue to explore research avenues with BMW Group and other partners for exploration. At this stage we are in the midst of formulating projects around logistics, robotics, VR, automotive human-machine interfaces and cutting-edge design thinking. We are also exploring exciting project with Brisbane BMW around end user engagement and perceptions with electric vehicles and new car interface technologies. We are also excited about our research publications from James Dwyer (recent Masters graduate) who is currently finalising papers that will be published in conferences and journals. His research was really innovative and we can't wait to publish some of the work for general audiences to read!

SPECIAL PROJECTS

The Special Projects program pioneers world-first projects by Advancing Cutting-Edge Technologies. It is tailored for professional design graduates to work on advanced R+D projects for real-world applications. These projects are established by BMW Group in Munich and are supported by the Special Projects team at the academy.

SORDI, Hams Hall and idealworks

Despite some long weekends and holidays this month, our work output this month has been fruitful. Our motion graphics expert and Design Associate Epi Pereira, has finished two animations for the BMW Tech Office team. The first is an animation to illustrate how they are using machine learning to automate digital twin creation, by using point clouds and image recognition data. The second animation is for the SORDI project, showing the next iteration of the dataset whereby new synthetic images are created for machine learning, using a technique called generative adversarial neural network (GAN). Both of these animations will be on our website soon, once they have been published by the Tech Office team.

We also spent some time this month working on branding for a new 3D scanning robot from idealworks. Using supplied CAD we were able to generate 2D and 3D concepts for the application of idealworks logos and graphical elements which suit the brand identity. The scanning robot is mounted on a dolly, moved around a factory by the fully autonomous idealworks iw.hub robot. The branding is finalised, but once the robot is in production and public we'll be able to share some images of this project.

Additionally, we have started on some 3D modeling tasks this month for idealworks. 2023 BMW intern Isaac Bonora is leading the project to create a web based 3D viewer for explaining the different components, technology, features and information about the iw.hub, at trade-shows, events and online. The Academy involvement in this includes providing an optimised 3D model of the current iw.hub, which Isaac will place into the viewer and 3D explanation app.

Lastly, we continue to work on the Hams Hall Future Vision animation. We are really happy with the updates and work we have completed recently, and can start to see it coming together in more clarity as each week passes.

FEATURE



2023 BMW INTERN EXPERIENCES SO FAR

As most of our 2023 BMW Interns are a few months into their roles, we've asked them to share some of their experiences and thoughts about their internships thus far. A couple are in this newsletter, however the [Blogs](#) page of our website will feature all of blogs written by the interns.

Damian Noviello
Design Intern, BMW Logistics Innovation + Robotics

It has been roughly three and a half months since arriving in Germany and starting my internship at BMW and I'm incredibly grateful and fortunate to partake in this once in a lifetime opportunity. I've been very excited and looking forward to this internship for a long time and it has not disappointed; it's been awesome so far.

Munich is a beautiful city with a rich history and has been wonderful to explore. I will admit, getting used to the weather, culture and lifestyle here was something that took some time as it's a stark contrast to Brisbane. What I love most about Munich, apart from being a hub for cutting-edge technology and design, is its vibrant and unique culture. A great perk about this internship is being able to explore Europe in your downtime and now that spring has arrived, I'm excited to see the landscape change.

The internship had a slow start which I appreciated as it allowed me to find my feet before diving into any major projects. I am thankful my colleagues are friendly and were very welcoming, including me in their usual office activities like playing fooseball during our lunch break. The view on your walk through the BMW plant is very nice, if you're a car enthusiast that is. Seeing a small carpark's worth of colourful M3s fresh off the assembly line every morning is not something I'll get tired of any time soon.

The most interesting and exciting experience I've had so far at BMW was a plant tour. Being fortunate enough to see the process of how various BMW's are constructed and assembled was awesome. Seeing a floor full of robot arms welding car chassis then walking on the assembly conveyor to see various procedures take place, from wiring to quality control checking, gave so much insight on just how complex it is to produce a car.

At this stage in the internship my main project is rebranding the Logistics Innovation & Robotics department. Alongside this, I'm currently doing some other minor design work with some Omniverse projects on the horizon. It's great being surrounded by people working on the company's latest and most exciting projects. I'm constantly learning by engaging with my colleagues, discussing their work and contributing ideas to help solve problems. Through this, I'm getting hands-on experience that is invaluable to me as an industrial designer.

What I have learnt most so far is how to operate professionally within a large corporate company, gaining insight into appropriate procedures and processes like internal communication, meeting scheduling, and data sharing. I am keen to continue my journey here at BMW and make the most of this opportunity to know, think, and do better as an industrial designer.



Emily Boehmer
Design Intern, BMW Tech Office Munich

I have been an intern at BMW TechOffice for just over a month now and it has been a wonderful experience. I wasn't sure how I would like working in a major company like BMW, fearing it would be too formal or too intense. I was pleasantly surprised to discover that the majority of the TechOffice is made up of friendly software engineering interns and PhD students, working on cool projects in an office decorated with 3D prints, Nerf bullets and a chess set that gets daily use. So far I have been utilising skills in animation, 3D modelling and some light coding for some really interesting tasks related to the SORDI.ai project. This has suited me perfectly as someone wanting to move away from traditional industrial design into more digital creative work.

I did an internship with the BMW Group + QUT Design Academy back in 2020, and while I have used Blender in both internships I have been using it in different ways. The skill I have found most transferable between the internships was actually the technique of learning new software rather than the software itself. I always bring a notebook with me to work and take notes on all of the new tools and processes I have been using in Blender and in other new software I have been learning and it saves me so much time when I need to reuse those tools and processes.

Although I started my internship in late March I have been living in Munich since the 11th of January, so have had quite a while now to get used to the city. Myself and 3 other QUT interns have opted to share a house instead of joining the queue for the BMW apartments which has been really nice. It's quite easy to get around Munich as the public transport is fairly reliable (apart from the frequent strikes) and Germany has just introduced the Deutschland ticket - 49 per month for unlimited travel on buses, trains and trams across the whole country. It's also a very safe city compared to many other European cities where you would usually have to be on high alert for pickpockets. Unfortunately the weather has been quite gloomy and cold for most of my 3 months here, but I have been assured many times that the summer and autumn months are beautiful, so I will reserve judgement on the weather for now, and I am glad I got to see some snowfall. You also may or may not be pleased to hear that alcohol is equal or in some cases cheaper than water here - a few days ago I was shocked to see that water cost a staggering 5,50 while a shot of almost any alcohol on offer was a mere 2,50.

There are many things to see and do in Munich, with lots of museums and galleries, restaurants, markets and historical sites to explore. There have been two major festivals since I have been here too - Fasching and Frühlingsfest (Spring fest). People here are very enthusiastic about their festivals and they are great fun. There are also many day trips you can do around Bavaria and countries like Czechia, Italy, Austria, Switzerland and France are just a train or bus ride away. I travelled to southern Italy with a bus company called Flixbus - honestly 13 hours was a bit long for a bus ride but it was easy and cheap to book and I'd happily take the bus again for a shorter journey.

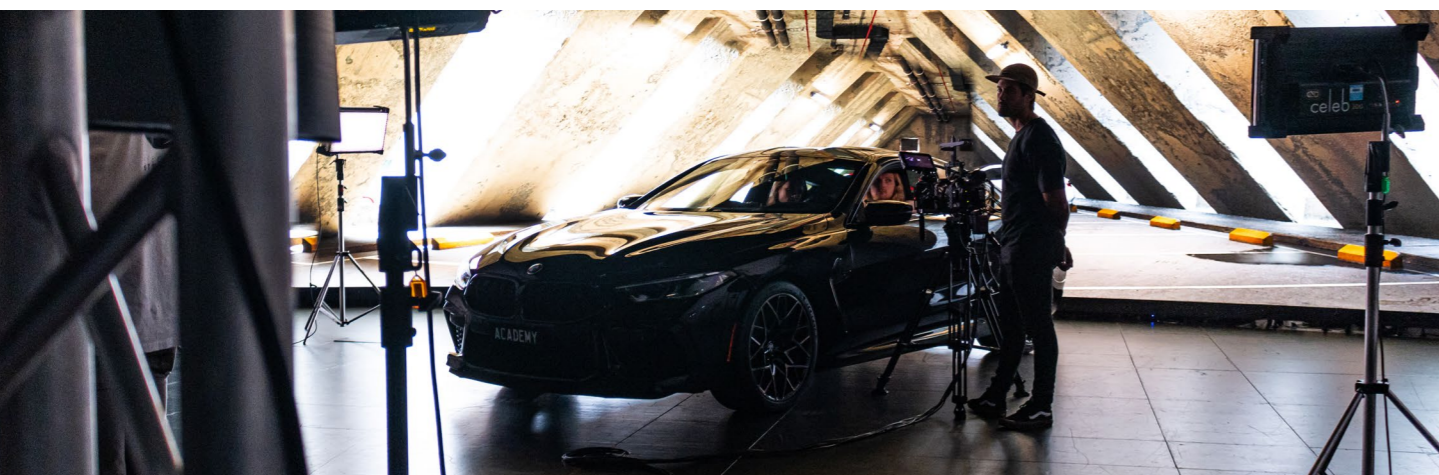
In my first month here I studied German at the Goethe institute, and while it has been very helpful for reading signs and labels at grocery stores I wouldn't say it is essential and it has been of no use to me in the office - everyone speaks good English and I actually hear more Lebanese spoken in the office than German. The camera function on Google Translate is really effective for reading German when out and about and pointing to items on menus and in store windows while awkwardly struggling to pronounce the words usually gets the message across. Often the people you are trying to communicate with will quickly identify you as an English speaker and speak back to you in English if they can.

Even though I daydream about sunny Brisbane as I put on my heavy winter jacket in mid spring, I really am

enjoying my time here and am happy to go to work each morning. I'm so grateful to have this opportunity and am developing both my professional and personal skills so much as I experience an amazing internship on the opposite side of the world. If you think this opportunity sounds even slightly appealing I highly encourage you to apply.



BRIEFINGS



ACHIEVEMENTS

- Impact Lab 4 students start projects
- Academy WIL interns Initial Concept presentation
- New projects for idealworks team
- Applications received for possible BMW Motorrad Internship in Germany. More info to come!

EXTERNAL COLLABORATIONS

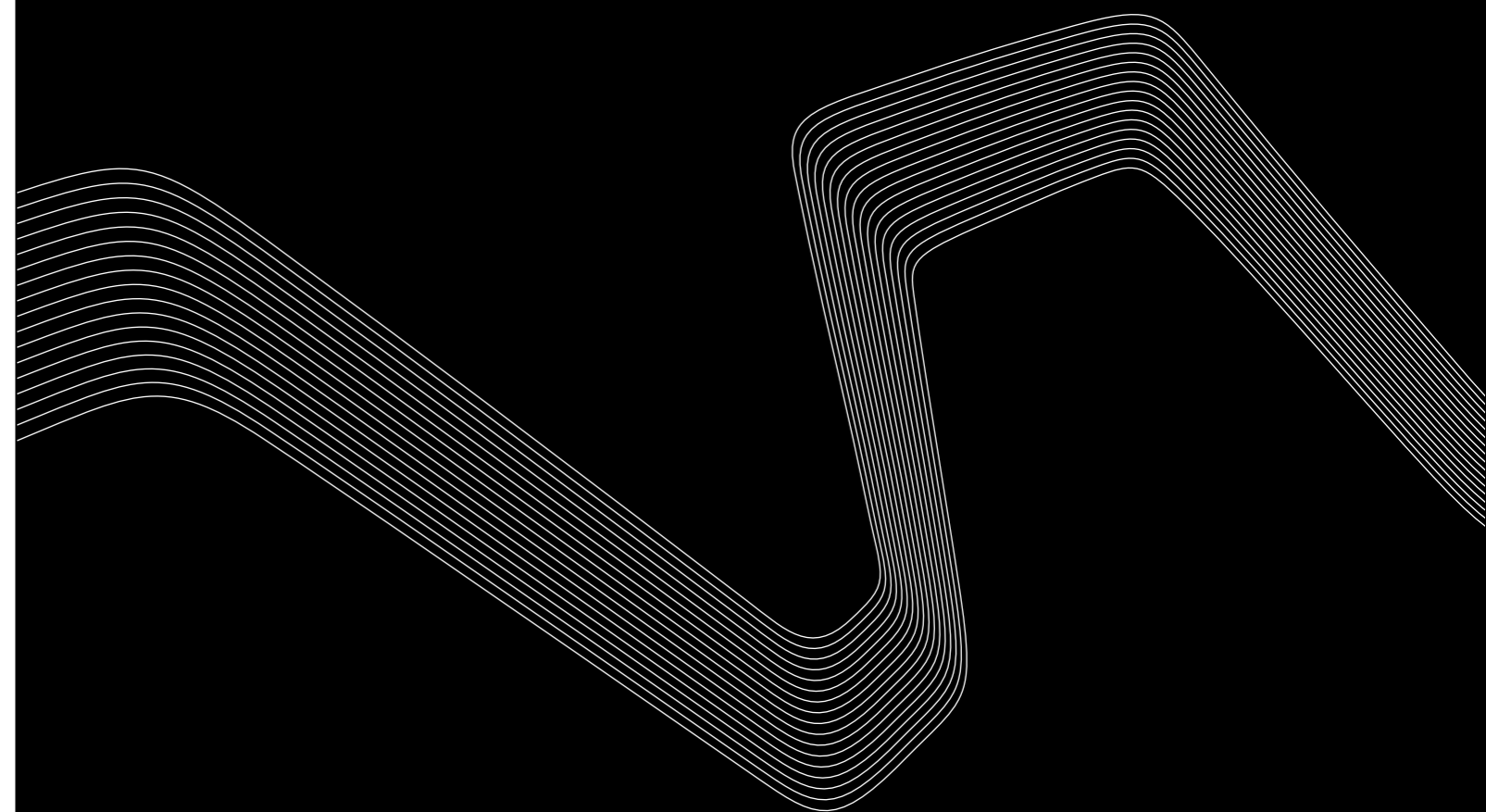
In our last newsletter you would have seen images from the Virtual Production screen demo which used our M8 Competition Coupe as a key element for the environments being shown. Early in April we were asked to write some words for the QUT media release which highlights the demo and collaboration between Vizion Studios, the School of Creative Practice and the QUT XR Futures Hub. The [News item](#) on our website will be updated with the published media release soon.

BMW Group + QUT Design Academy © 2023

info@bmwgroupqutdesign.academy
www.bmwgroupqutdesign.academy
@bmwgroup_qut_designacademy

Z2-308 + Z2-407, QUT Kelvin Grove
Brisbane, QLD

TEQSA PRV12079 | CRICOS 00213J



BMW GROUP + QUT
DESIGN ACADEMY

