

INTERESTS

Creative Higher Education

Aim: Studying and Improving Student Learning Experiences

Area	Example Projects	Skills / Technologies
Planning	<ul style="list-style-type: none">• Long-Term Course Planning• TA assignments and hours<ul style="list-style-type: none">• Assign best TAs to courses	<ul style="list-style-type: none">• Optimization• Petri Nets• ...
Educational tools	<ul style="list-style-type: none">• Programming self-tutor (COSC1xx)<ul style="list-style-type: none">• Guided Programming• Visualize code execution• CPU simulator (COSC211)• Data-structures demo & practice (COSC222)• ...etc.	<ul style="list-style-type: none">• Programming<ul style="list-style-type: none">• web, mobile, standalone• HCI• AI, Expert Systems
Educational games	<ul style="list-style-type: none">• Learn programming using games<ul style="list-style-type: none">• e.g. use Minecraft to learn loops, etc.	<ul style="list-style-type: none">• Same as above
Classroom tools	<ul style="list-style-type: none">• note-taking tool• group interaction tool	<ul style="list-style-type: none">• Programming (web,mobile)• Mind maps
Course Modules	<ul style="list-style-type: none">• Module with Notes, Interactive Videos, Animations, Simulations, QAs, etc.	Programming
DSS	<ul style="list-style-type: none">• Support making decisions in uncertain situations (e.g. which major, courses, ...?)	<ul style="list-style-type: none">• Optimization• BBN, Simulations, ..
Exploratory studies	<ul style="list-style-type: none">• What motivates students?• How to get students more engaged?	<ul style="list-style-type: none">• Questionnaires / surveys