Angelos Mavrogiannis

angelosm@andrew.cmu.edu • www.linkedin.com/in/angmavrogiannis • www.github.com/angmavrogiannis • cell: (607) 241-0629

EDUCATION

Carnegie Mellon University (CMU)   *Pittsburgh, PA*
Master of Science in Mechanical Engineering - Research   *Aug 2018 - May 2020 (exp.)*
GPA: 4.00/4.00
Coursework: Machine Learning, Robot Design, Linear Control, Mechanics of Manipulation, Engineering Computation

University of Patras (UoP)   *Patras, Greece*
Diploma in Mechanical Engineering and Aeronautics (5-year degree, equivalent to BSc & MSc)   *July 2017*
GPA: 8.03/10.00 (top 10% in a class of 150 students)
Concentration: Design and Control

SKILLS

Programming Languages: C/C++, Python, Visual Basic, Fortran, SQL | **Operating Systems**: Microsoft Windows, Linux, Unix | **Version Control**: Git | **Engineering Software:** MATLAB/Simulink, ROS (Robot Operating System), Solidworks, Catia, AutoCAD | **Languages**: English (Fluent), French (Intermediate), Greek (Native)

PROJECTS

Bioinspired Robot, *24-775: Robot Design and Experimentation*, taught by Aaron Johnson, CMU   *Spring 2019*
- Collaborated with a team of students to design, control and test an underwater penguin-inspired robot.

C++ Programming, *24-780: Engineering Computation*, taught by Nestor Gomez, CMU   *Fall 2018*
- Implemented applications with 3D graphics and audio programming, using C++ and the openGL library.
- Orchestrated a team project on the development of an interactive entertainment software package (a fighting game).

Manipulation Project, *26-741: Mechanics of Manipulation,* taught by Matt Mason, CMU   *Fall 2018*
- Collected a synthetic dataset of manipulator postures and object poses in OpenAI Gym and mapped changes in hand pose to object displacements in order to track occluded objects.

Computational Robotics Project, *MEA-KY3: Robotics,* taught by Nikos Aspragathos, UoP   *Fall 2016*
- Developed forward and inverse kinematics software in Matlab for a KUKA KR 6 R700 sixx WP industrial robot.

HONORS & AWARDS

Fulbright Scholarship | Andreas Mentzelopoulos Scholarship | Harry D. Triantafillu Scholarship | Top student award in the 3rd ACM Summer School in Data Science, Athens, Greece, July 2019

EXPERIENCE

Graduate Research Assistant, *Intelligent Control Lab,* CMU   *January 2019 - Present*
- Conducting a survey on different methods-parameters used for vehicle behavior prediction in various driving scenarios.
- Training recurrent neural networks (PyTorch) for intention and trajectory prediction on autonomous driving applications based on NGSIM datasets (supervised by Prof. Changliu Liu).

Graduate Research Assistant, *Computational Engineering and Robotics Lab (CERLAB),* CMU   *Sept 2018 – January 2019*
- Research on the design and control of an underwater, hull-cleaning robot (code in C++, communications through ROS, project funded by Tsuneishi Shipbuilding Co. Ltd and supervised by Prof. Kenji Shimada).

Teaching Assistant, *24-281: Introduction to Scientific Computing,* CMU   *Spring 2018, Fall 2019*
- Teaching MATLAB recitations, holding weekly office hours and creating and grading assignments.

Teaching Assistant, *24-686: Advanced Mechanical Design,* CMU   *Fall 2018*
- Offered SolidWorks recitations, held weekly office hours and designed/graded assignments and projects.

Supervising Engineer, *F1 in Schools, 4x4 in Schools,* Athens, Greece   *May 2018*
- Collaborated with a team of engineers to inspect and validate F1 and 4x4 student-designed vehicles.

Undergraduate Research Assistant, *Machine Design Laboratory (MDL)*, UoP   *Nov 2016 - July 2017*
- Developed a software tool (Visual Basic) for automatic parsing of optimization problems from mathematical expressions into numerical code and solving them using Genetic Algorithms (Diploma Thesis project).

Jr. Technical Superintendent, *Euronav Ship Management Hellas Ltd,* Athens, Greece   *Summer 2012, Summer 2013*
- Reviewed weekly fleet reports to analyze and optimize on-ship oil and energy consumption.