Tlegen Kamidollayev

tlegen.kamidollayev@gmail.com | (857) 891-5590 | Lowell, MA | linkedin.com/in/tlegen-k | github.com/tlegen-k

EDUCATION

University of Massachusetts Lowell **Lowell, MA**
PhD, Mechanical Engineering *Expected Mar. 2023*
GPA: 3.77/4.00, Full Scholarship
Thesis: "Modeling of Reactive Species Transport in Air Plasma Jet Impinging on Water"

Moscow Institute of Physics and Technology **Moscow, Russia**
MS with Honors, Applied Mathematics and Physics *June 2017*
GPA: 3.91 /4.00, Full Scholarship
Thesis: "Comparative Analysis Of Numerical Methods For Solving Melting-Solidification Problems Of Materials With A Distributed Heat Source"
BS, Applied Mathematics and Physics *June 2015*
Full Scholarship

WORK EXPERIENCE

University of Massachusetts Lowell **Lowell, MA**
Research Assistant *Sep. 2018 - Present*

- Developed a C++ software based on OpenFOAM framework to computationally investigate the interaction of Atmospheric Pressure Non-Thermal Air Plasmas with Liquids.
- Conserved 300 hours of time required to design and conduct physical experiments and around 10 000 dollars on equipment.
- Coded Python scripts for the automated post-processing of simulation results in Paraview. Prevented 6 hours per week of manual creation of simulation figures, animations and data extractions.
- Communicated progress and results to research group of 13 people on weekly meetings.
- Investigated Phase Change Materials enhanced Air Heat Exchangers performance for thermal control in buildings using numerical modeling. Published a 15-page paper.
- Recommended the optimal design of stacked panel layer packaging that is 51% faster than initial.

Red Hat ***Boston, MA***
AIDevOps Software Engineering Intern *May 2021 - Aug. 2021*

- Teamed with 9 people to implement an automated mechanism for suggesting Python package names based on an imports supplied.
- Created an endpoint on User API of Thoth Station. Saved hundreds of hours on the debugging of imports and package names inconsistencies in Python software.

University of Massachusetts Lowell **Lowell, MA**
Lab Teaching Assistant *Sep. 2018 - May 2019*

- Taught 90 undergraduate students to work with Plastics Engineering laboratory equipment.
- Educated necessary theoretical background to guide them in their solutions and debugging.
- Supported students identify problems with their experimental setups.

ADDITIONAL

Programming: C++, Python, Matplotlib, Bash, Git, NumPy, MATLAB
Computational Fluid Dynamics: OpenFOAM, COMSOL, SolidWorks, Pointwise, Paraview
Languages: Fluent in English, Kazakh, Russian and Spanish
Awards: Full scholarships for Bachelor (2011), Master (2015) and PhD (2018) studies

PUBLICATIONS

- **T. Kamidollayev**, J.P. Trelles, J. Thakkar, J. Kosny "*Parametric Study of Panel PCM–Air Heat Exchanger Designs*" Energies 15 (15), 5552. DOI: 10.3390/en15155552
- **T. Kamidollayev** "*Comparison of two methods for solving melting-solidification problems*" Collected work of XVII School of Young Scientists, NSI RAS, March 2016