Vitor Gama

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Education

West Virginia University — Morgantown, WV, USA
Ph.D. student, Chemical Engineering; — *Aug. 2021 – Dec. 2025 (Expected)*
GPA: 3.75/4.00

Federal University of Campina Grande — Campina Grande, Paraiba, Brazil
M.Sc., Chemical Engineering; — *Sept. 2018 – April 2021*
Academic Coefficient: 9.14/10.00

Federal University of Campina Grande — Campina Grande, Paraiba, Brazil
B.Sc., Chemical Engineering; — *May 2013 – Aug. 2018*
Academic Coefficient: 8.18/10.00

Research Experience

West Virginia University — Morgantown, WV, USA
Graduate Research Assistant (Ph.D.) — *Aug. 2021 – Currently*

- Currently working under Dr. Fernando V. Lima and Dr. Oishi Sanyal on the analysis of gas separation membranes for Direct Air Capture (DAC) and Carbon Capture (CC), focusing on process system simulation and assessment of operational regions.
- Control, Optimization and Design for Energy and Sustainability (CODES) Research Group leader, supervising the group's activities, as well as organizing the semester schedule, workshops, weekly meetings and relevant announcements.

Federal University of Campina Grande — Campina Grande, Paraiba, Brazil
Graduate Research Assistant (M.Sc.) — *Sept. 2018 – April 2021*

- M.Sc. thesis: "CostApp: a Cost Estimation Tool Developed Using C# and WPF for the Chemical Engineering Field": Developed a Windows OS application for chemical industry equipment cost estimation based on literature models.

Work Experience

Federal University of Campina Grande — Campina Grande, Paraiba, Brazil
Graduate Research Assistant (M.Sc.) and Developer — *Sept. 2019 – March 2021*

- Technological Project for the Development of a Method for Synthesis of Control structures (PETROBRAS/CENPES/PAQTCPB/LENP/UFCG): An automated software capable of easily selecting the most promising self-optimizing control structures in industrial processes.
- Worked on coding the PID routines to control simulated processes uploaded to the BRPWC tool
- Worked on developing mock-ups for the process control user interface of the tool and code troubleshooting

Awards & Achievements

AIChE Environmental Division Graduate Paper Award (2024): Awarded 2nd place with the paper titled "Process Operability Analysis of Membrane-Based Direct Air Capture for Low-Purity CO_2 Production".

Jack and Marietta Mullenger Fellowship:

Skills

Programming: Python, MATLAB, Markdown, C#, Javascript, LaTeX and exposure to Java

Technologies/Platforms: Git, GitHub, GitLab

Process simulation: Aspen Plus, Aspen Custom Modeler, HYSYS, AVEVA Process Simulation, PRO/II, ChemCad

Languages: English and Portuguese

Relevant Coursework

Major coursework: Transport Phenomena, Advanced Chemical Engineering Thermodynamics, Chemical Reaction Engineering, Mathematical Methods in Chemical Engineering, Artificial Intelligence Technologies in Mechanical and Aerospace Engineering, Teaching Practicum

Minor coursework: Dynamic Simulations, Membrane Separations

CliftonStrenghts

Arranger | Positivity | Input | Woo | Communication

Organizations

Brazilian Student Association (President) *September 2022 – September 2024*

President

Statler College DEI Student CommitteeMay 2022 - May 2023