Anthony Katona

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🎓 Education

•The Pennsylvania State University

Chemistry

2023
PhD

- ⚗ designed & synthesized ultra-fast/nano-scale thermal transport materials; developed photo-thermal polymer techniques for coatings & 3D-printing applications with *Dr. Benjamin Lear*

- ☢ oversaw lab safety as General Safety Officer & Laser Safety Officer as well as managed supply & maintenance of pumps, gas cylinders, and gloveboxes

- 👤 taught as TA for all first year chemistry courses & mentored both graduate incoming TAs & undergraduate researchers

- 👤 co-developed and implemented novel thermal conductivity undergraduate lab experiments for *Dr. Bratoljub Milosavljevic*'s physical chemistry course

•Susquehanna University

Biochemistry; Physics minor

2015
BS

- ⚗ synthesized novel transition metal Janus complexes with *Dr. William Doughtery*

- ⚗ contributed to procedural galaxy classification models in computational summer research with *Dr. Violet Mager*

🧰 Technical Skills

💡 **spectroscopy**: NMR, IR, UV-Vis

🔬 **microscopy**: AFM, TEM, SEM

🔒 **materials**: tension (UTM, DMA), thermal (DSC, TGA, TPS)

⚙ **laser**: class IV CW/pulsed safety, handling, optics

〰 **electronics**: circuit design/prototyping, signal generation, spectrum analysis, micro-controllers

💻 **languages**: Python, C#, C++, Labview, HTML, CSS, JS

📦 **3D**: Blender (modeling, sculpting, rigging, animating, shading, VFX, compositing), Unreal Engine

🎨 **misc. software**: Adobe CC (AE, PS, Pr, Il), FL Studio, ImageJ, ChatGPT

🌐 External Resources

•**reference**: Dr. Mary Jo Bojan (TA Supervisor) - bz6@psu.edu

•**publication**: "Galaxy Structure in the Ultraviolet…" (2018) - doi 10.3847/1538-4357/aad59e

•**web projects**: frkatona.github.io