

Mahagani Thomas

MS, BSFS

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Address 45 State Drive,
Waterbury VT, 05676

Education

Rochester Institute of Technology (RIT)

ACS Accredited

Master of Science (M.S.) in Chemistry (*Analytical*)

The Pennsylvania State University (Penn State)

FEPAC Accredited

Bachelor of Science (B.S.) in Forensic Science (*Chemistry*)

Minor in Biology

Certification/Certificate

Occupational Safety and Health Administration (ClickSafety)

10-Hour General Industry Safety and Health Certification

August 2022

Monroe #1 BOCES Eastern Monroe Career Center (EMCC). Dual Credit with Monroe Community College (MCC)

Criminal Justice Certificate

May 2013

Relevant Coursework

Undergraduate: Chromatography and Electrochemistry, Analytical Chemistry, General Chemistry I & II, Forensic Chemistry, Physical Chemistry, Organic Chemistry I & II, Serology, Courtroom Testimony, Genetics, Crime Scene Investigation, Chemistry Laboratory, Technical Writing, Physics, Calculus I & II, Biostatistics

Graduate: Advanced Instrumental Analysis, Spectrometry ID of Organic Compounds, Practical NMR, Advanced Nucleic Acids Biochemistry

Professional Experience

Forensic Chemist II

August 2021 – Present

Vermont Forensic Laboratory (VFL)

Waterbury, Vermont

ANSI National Accreditation Board (ANAB)

- ❖ Analyzes whole blood specimens for drugs in DUI cases using a Randox Evidence Investigator (immunoassay) and a Waters Acquity UPLC H-class- MS/MS (Liquid Chromatography-Mass Spectrometry) instruments
- ❖ Familiar with the use of Perkin Elmer Gas Chromatography-Flame Ionization Detector (GC-FID) for blood alcohol analysis
- ❖ Working knowledge and experience with Laboratory Information Management Systems (LIMS)
- ❖ Reviews current literature on drug pharmacology, physiology, testing, and standards

Safety Officer:

- ❖ Familiar with OSHA standards 1910
- ❖ Conducts biannual safety reviews of the laboratory

Teaching Assistant (TA)

August 2022 – Present

The University of Vermont

- ❖ Oversee at least 20 students as they participated in General Chemistry Laboratory
- ❖ Assists professor in grading as well as answering student questions about the course material
- ❖ Assists students with proper laboratory techniques and procedures including instrument operation and analysis of laboratory data

Research and Development Specialist	October 2017 – July 2021
<u>ACM Global Laboratories</u>	Rochester, New York
<i>College of American Pathologists (CAP) and New York State Department of Health (NYSDOH) Accredited Laboratory</i>	
<ul style="list-style-type: none"> ❖ Authored several validation plans and reports for new instrumentation for drugs used in routine Clinical Trials ❖ Collaborated with R&D teams in York and Singapore to ensure global harmonization of validations and databases ❖ Created Excel worksheets to document sample storage and experimental notes for sample analysis ❖ Assisted in the start-up of a new Clinical Trial Laboratory ❖ Quality Control (QC) reviews data entry, reports, and worksheets ❖ Developed or improved HPLC methods for several controlled substances ❖ Familiar with the use of Siemens Atellica Solution Immunoassay & Clinical Chemistry Analyzer, ADVIA 1800 Chemistry Systems, and ADVIA Centaur XP Immunoassay System to interpret results ❖ Prepared biological specimens for clinical trial testing ❖ Conducted routine maintenance and cleaning on LC-MS and GC-MS instruments 	
Quality Assurance Assistant	September 2017 – October 2017
<u>Bristol-Myers Squibb</u>	Syracuse, New York
<ul style="list-style-type: none"> ❖ Completed Hazards Material, Fire Safety, and Chemical Storage Training ❖ Used the triple wash systems for glassware ❖ Organized and stored approximately 300 chemicals ❖ Performed daily maintenance and quality checks on several analytical instruments 	
Teaching Assistant (TA)	August 2020 – May 2021
<u>Rochester Institute of Technology</u>	
<ul style="list-style-type: none"> ❖ Oversaw at least 20 students as they participated in General Chemistry Laboratory, per section ❖ Assisted professor in grading as well as answering student questions on the course material 	
Learning Assistant (LA)	August 2015 – May 2017
<u>The Pennsylvania State University</u>	
<ul style="list-style-type: none"> ❖ Assisted professor in teaching Analytical Chemistry ❖ Hosted weekly tutor sessions 	
Intern	February 2013 – April 2013
<u>Rochester Police Department Technicians Unit</u>	
<i>Under the Central Investigations Division</i>	
<ul style="list-style-type: none"> ❖ Observed the process of an incident scene for physical evidence ❖ Assisted in creating an inventory log of how to export video data from different VCR recording devices 	
Manager	June 2012 – July 2021
<u>Seabreeze Amusement Park</u>	Rochester, New York
<ul style="list-style-type: none"> ❖ Supervised over 30 employees per shift and delegated daily tasks ❖ Created Excel worksheets to document paperwork of employees and schedules ❖ Developed a training course for incoming cashiers in the food department ❖ Oversaw operation of the 15 food stands and ensured proper opening and closing procedures 	

Professional Memberships

American Academy of Forensic Science (AAFS)	May 2022 – Present
❖ Trainee Affiliate	
Society of Forensic Toxicologists (SOFT)	December 2021 – Present
❖ Associate Member	
American Chemical Society (ACS)	September 2021 – September 2022
Forensic Science Club	August 2013 – May 2017
❖ Member	
❖ Vice President (2014 – 2015)	

Professional Development/Continuing Education

Marijuana & Driving in 2023: It's Not Just Delta-9-THC Anymore	January 2023
The Role of Prescriptions Drugs in Multi-Substance Impaired Driving	December 2022
IACFT: Three Days, Three Experts, Three Tox Talks – Spring 2022	November 2022
Society of Forensic Toxicologist (SOFT) 2022 Conference	October 2022 – November 2022
❖ Workshops: Method of Standard Addition for Analyte Quantification for Application to Postmortem Matrices and Novel Psychoactive Substances Drugs and Behavior: The Role of Forensic Toxicology Method Optimization During Development and Validation: Tips and Tricks on How to Succeed	
Extensive Overview of Pharmacology for the Forensic Toxicologist: 2022	July 2022
2022 Current Trends in Forensic Toxicology Symposium	May 2022
Know Your Limit: Vermont Impaired Driving Summit	May 2022
Advanced Roadside Impaired Driving Enforcement (A.R.I.D.E.)	March 2022
New England Area Toxicologists Annual Meeting	April 2022
An Introduction to Drug Categories in Drug DUI Cases: Narcotic Analgesics	February 2022
DRE and IACP 2022: Updates & Enhancements	February 2022
DWI Detection and Standardized Field Sobriety Testing (SFST)	December 2021
Advances in Clinical Chemistry Education and New Technology (ACCENT)	December 2021
2021 Virtual Impaired Driving Conference	November 2021
Robert F Borkenstein Course on Drugs: Effects on Human Performance and Behavior	August 2021 – September 2021
2015 Penn State Forensic Science Club Symposium and Chop Shop	April 2015
❖ Hosted: Roger Mitchell (D.C's chief ME), Skip Palenik (President Microtrace LLC), John Murdock (firearm and tool mark examiner), Frank Wendt, and Jenny Nolan	

Presentations, Posters, and Publications

Nominal Operating Envelope of Pod and Pen Style Electronic Cigarettes	August 2021
<i>Front. Public Health</i> 9:705099. doi: 10.3389/fpubh.2021.705099	