

NICHOLAS WEBB

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Analytical Chemistry | Organic Chemistry | Biochemistry | Synthetic Chemistry | Physical Chemistry | Quantum Chemistry | Biology | Laboratory Protocol | Teaching | Statistics | Data Analysis | Scientific Writing | Microsoft Office | HTML/CSS/JS | VBS | Web Development | Bootstrap | Computational Modeling

Experienced in lab work including spectrophotometry, electrophoresis, NMR, GC-MS, PCR, and other means of analyzing organic and biochemical reactions. Able to use these skills to carry out tasks such as planning and executing complex organic syntheses or making genetic modifications to bacteria. Additional experience working as a tutor in chemistry, biology, and mathematics. Combined with time as a science advisor for a health and wellness podcast has afforded a unique perspective on how to relate scientific concepts to non-scientists. Also a self-taught coder and web-designer. Samples of work, both in the lab and on the web, are available on personal website. Seeking to leverage background for a science-based role, focusing on lab work or otherwise applying knowledge in biology and chemistry.

EDUCATION

B.S. Chemistry (Biochemistry Track), University of North Carolina | 2017

- GPA 3.06/4.0, Dean's List 2016

Duke Talent Identification Program, Institute of Human Genetics | 2012

- This program for science students at Duke University included in-depth education about genetics and lab work isolating DNA.

EXPERIENCE

Lab Technician | October 2017 – March 2018 (Enthalpy Analytical, 5 month contract)

Duties include sample preparation, running extractions, and logging results as well as general lab maintenance. Primarily focused on quantifying levels of chemicals in tobacco such as benzyl- α -pyridine, alkaloids, and nicotine.

Lab Technician | 2017 (Amec Foster-Wheeler, 6 week contract)

Working on a four-person team, duties included sample prep work for an environmental study being conducted in relation to ongoing litigation about mercury contamination in the Penobscot river basin in Maine.

Chemistry Tutor | 2015 to present

Started out as a volunteer tutor with the UNC Chemistry department, later went to work as an online tutor at Chegg/InstaEdu. Primarily taught chemistry and biology. Some students also requested help with physics and mathematics. Student testimonials are available here: <https://www.chegg.com/tutors/online-tutors/Nicholas-W-2022207/>

Systems Modelling Research | 2016

Worked on a team to develop a model for the effects of disorder and anisotropy on conductance of third and fourth dimensional cubic lattices. Primary role was to conceptualize the model and develop the code in MATLAB. This was done under the guidance of Dr. Andrew Moran. A summary of the project and the PowerPoint presentation is available on personal website.

Eager to Be Healthy Science Advisor | 2015

This summer internship position involved researching health related science to ensure the host was well informed on the monthly podcast's topic. Also engaged in post-production work.

LABORATORY EXPERIENCE

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| • Electrophoresis (agarose gel, SDS-PAGE) | • Gas Chromatography Mass Spectrometry (GC-MS) |
| • NMR (1H, 13C, 31P) | • Thin Layer Chromatography (TLC) |
| • Organic synthesis and catalysis | • Polymerase Chain Reaction (PCR) |
| • Column Chromatography (ion-exchange, size exclusion, affinity) | • Ultraviolet Spectroscopy (UV-Vis) |
| | • General lab work and safety training |

ADDITIONAL EXPERIENCE

Web Design | 2014 to present

Initially self-taught, but in the past year have done additional training with Udemy. Primarily focused on mobile web-applications to sell on the Cydia store. Currently have 4000 customers and occasionally do freelance contract work. Samples can be seen on personal website.

Compass Center for Women and Families Advocate | 2017

This volunteer work involved serving victims of interpersonal violence by responding to calls on a 24-hour hotline and meeting with survivors in person to provide crisis intervention, emotional support, court advocacy, and referrals.