Jefferey Baxter‍

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EDUCATION

**Bachelor of Science, Electrical Engineering Technology**  **Jan. 2014** - **Apr. 2019**

Eastern Michigan University, Ypsilanti, MI GPA 3.35

Member of Phi Theta Kappa Honor Society

Member of NOSC Detroit Funeral Honors Team

Member of the Northville Historical Society

Previous Top Secret Security Clearance in DoD

**Electronics Technician A School (ETV), US Navy, Groton, CT 2008 - 2009**

**Nuclear Ballistic Missile Navigation Systems (D5 Backfit), US Navy,**

**TTF Bangor, WA 2009 – 2010 Lehigh University Microscopy School 2019**

WORK EXPERIENCE

Electronics Technician, US Navy Active Duty 2008 - 2013

Water Utility Crewman, Barger and Sons inc. 2013 – 2014

Sales Associate and Manager, Gamestop 2014 – 2015, 2016 – 2019

Lawnmowing and Landscaping 2015 - 2016

Rink Associate and Zamboni Driver, Arctic Edge Ice Arena 2016 – 2019

Oil Change Technician, Victory Lane Oil 2017 – 2018

Electronics Technician, US Navy Reserves 2017 – 2019

Engineering Internship, CEC Controls Company 2018 - 2018

Associate Technician, STEM Group, Oak Ridge National Laboratory 2019 - Present

MILITARY EXPERIENCE

**I was stationed onboard USS Nevada SSBN 733 for my first tour of duty from JAN 2010 to SEP 2013. I was a valuable member of Navigation Division. I worked on SWS providing missile fire control with navigation information. I also performed various preventative and corrective maintenances on the Navigation SWS, which include replacing the gyro of an ESGN while underway. While onboard we conducted a DASO where I became very experienced in the Navigation Systems. After deterrent patrols the division would take standardized tests on SWS on which I consistently scored highest in the division.**

**I served a tour of duty with the Navy Reserves from October 2017 to October 2019. I was attached to the Undersea Warfare Operations Detroit unit. As a reservist I supported Theatre Anti-Submarine Warfare and was qualified on the watch stations after only one training period, where I was recognized by the inspection team for my level of knowledge and drive to qualify. I attended a training symposium for TASWWO at the Groton Sub Base. I also served the NOSC as a whole by being a member of the Funeral Honors Team and I was elected as Secretary of the Junior Sailor Association. In 2018 I earned the Great Lakes region Junior Sailor of the Quarter award.**

Organizational Leadership

* Supervised 15 technicians, maintaining navigation systems, ship’s atmosphere monitoring systems, interior communication systems and missile compensation system.
* Developed and delivered a training plan on international navigation procedures for 18 sailors.
* Developed and delivered training exercise on Theatre Anti-Submarine Watch floor operations for two new junior sailors.
* Pushed for the formation of the ORNL Technicians Council where I sit as the CNMS representative
* Provided training and qualifications of complicated instrumentation at ORNL to staff

Engineering and Technology

* Collaborated with Boeing and Lockheed field engineers in operating Electro-Statically Supported Gyro Navigator, Electro-Magnetic Logs, and Frequency Generator.
* Scored highest in division on tactical readiness exam for operating and maintaining navigation systems aboard a nuclear missile submarine.
* Solved Complex Problems related to ship communication and navigation systems to develop and evaluate options and implement solutions to maintain a fully functional ship.
* Ensured reliability and accuracy of testing equipment by servicing, repairing, calibrating, fine-tuning, or testing equipment that operate primarily on the basis of electronic principles.
* Developed new methods for more accurate sample thinning both mechanically and on the FIB.
* Collaborated with Scientists from ORNL and outside Universities and Institutions in nano and quantum scale experiments.

**Publications:**

* S. M. Alia, K. S. Reeves, J. S. Baxter and D. A. Cullen (2020) *Journal of the Electrochemical Society,* The Impact of Ink and Spray Variables of Catalyst Layer Properties, Electrolyzer Performance, and Electrolyzer Durability
* Zhiqiang Xie, Shule Yu, Can Cui, Haoran Yu, Kui Li, Lei Ding, Weitian Wang, David A. Cullen, Harry M. Meyer III, Jefferey S. Baxter, Pu-Xian Gao, and Feng-Yuan Zhang (2022) *Journal of Material Science,* Unveiling Mechanism of Surface-Guided Platinum Nanowire Growth
* Lei Ding, Kui Li, Zhiqiang Xie, Gaoqiang Yang, Shule Yu, Weitian Wang, Haoran Yu, Jefferey Baxter, Harry M. Meyer, David A. Cullen, and Feng-Yuan Zhang (2021) *Applied Materials and Interfaces*, Constructing Ultrathin W-doped NiFe Nanosheets with Rich Defects via Facile Electrosynthesis as Bifunctional Electrocatalysts for Efficient Water Splitting
* Shule Yu, Kui Li, Weitian Wang, Zhiqiang Xie, Lei Ding, Zhenye Kang, Jacob Wrubel, Zhiwen Ma, Guido Bender, Haoran Yu, Jefferey Baxter, David A. Cullen, Alex Keane, Kathy Ayers, Christopher B. Capuano, and Feng-Yuan Zhang (2022) *Wiley Online Library*,Tuning Catalyst Activation and Utilization Via Controlled Electrode Patterning for Low-Loading and High-Efficiency Water Electrolyzers
* Qianying Guo, Thomas R. Watkins, Artem Trofimov, Hsin Wang, Gary Cola, Thomas R. Muth, Dileep Singh, Jonova Thomas, Sudarsanam Babu and Kinga A. Unocic (2021) *Microscopy and Microanalysis*, Microstructure Evolution of Low Carbon Steel via Flash Processing. Acknowledgement
* D. P. Leonard, S. Komini Babu, J. S. Baxter, H. M. Meyer III, D. A, Cullen, R. L. Borup (2023) *Journal of Power Sources*, Natural Fiber-Derived Gas Difflusion Layers for High Performance, Lower Cost PEM Fuel Cells