



American Welding Society®
DETROIT SECTION



NOVEMBER 2023 Inside This Issue

- 1 TECHNICAL MEETING
THURSDAY, NOV. 9TH
UKRAINIAN CULTURAL
CENTER
- 1 OUR MISSION
- 2 NOVEMBER HOTLINE
- 2 SAVE THE DATE: 4/13/24
LADIES' NIGHT
- 2 2023-24 PATRONS FUND
- 3 HOLIDAY PARTY 12/2/23
AT LEGENDARY AVE.,
WESTLAND
- 5 COMING EVENTS
- 6 FEATURED ARTICLE:
"WHAT DO I NEED TO
PROVIDE?"
- 7 EXECUTIVE COMMITTEE
CHAIRS
- 9 *THANK YOU... FROM
MICHAEL GARZELLONI*
- 9 SAVE THE DATE FOR
SMWC XX!
- 11 *THANK YOU... FROM
CONNOR GIBBS*
- 11 *THANK YOU... FROM
LUKE FOUNTAIN*
- 12 REFLECTING ON DAYS
GONE BY... 1987

Check out the latest videos
published by the American Welding
Society on its YouTube page.

AWS Technical Nights are open to
everyone! We encourage that
members bring students and non-
members to learn more about our
organization and industry.



Affiliated With

THE ENGINEERING SOCIETY

AWS-Detroit Technical Meeting

Thursday, Nov. 9, 2023 • 5:30 - 8pm

Rapid Production of Resistance Welded 3" Long Linear Joints

SPEAKER: WARREN PETERSON

LOCATION: UKRAINIAN CULTURAL CENTER
26601 Ryan Rd., Warren MI 48091

Click here for [Google Maps](#)

This talk will present an overview of a commercial resistance welding project used to weld a 3-in long overlapping lap joint using a set of long Bar-Shaped Electrodes. This presentation will illustrate the problems encountered, experimental approach, present data, and detail the resolution to a previously problematic joint. Linear resistance welds inherently produce poor weld quality at the ends of the weld joint. This presentation will discuss these difficulties along with the weld schedule and equipment resolution. The optimized weld practice produced very wide current ranges that allowed automation of the welding process. Current ranges in excess of 12KA were developed with maximum current levels about 29KA.



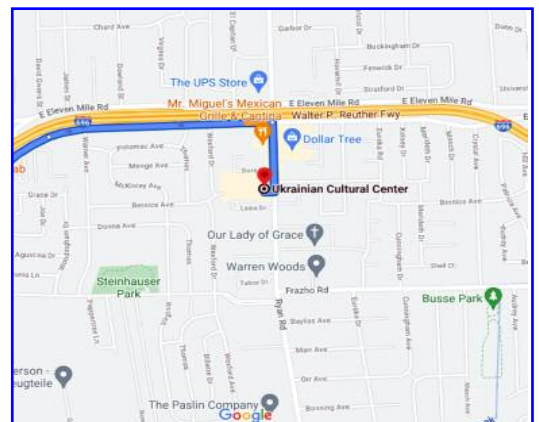
Speaker
Warren Peterson

Warren Peterson is the Welding Technical Director at United Technical, supervising the resistance and arc welding engineering activities and engineering lab. Previously, he has held positions at Edison Welding Institute (EWI) and Inland Steel Research Laboratories (ArcelorMittal). He is active in various AWS automotive arc and resistance welding committees and has authored more than 35 journal papers and conference reports. Warren currently serves on the AWS-Detroit executive board and chaired two AWS-Detroit Sheet Metal Welding Conferences (2018 & 2021). Warren is a graduate of the Ohio State University Welding Engineering program and is an expert in resistance welding processes.

A buffet style dinner & cash bar will be provided.

RSVP by Nov. 6th to:

horseman.todd@fronius.com



Our Mission is to advance the science, technology and application of welding and allied joining and cutting processes worldwide, including brazing, soldering and thermal spraying. AWS Detroit provides support for the industry in many ways, including: • Institutional Grants (endowment based); • Scholarships through Application (endowment based); • Scholarships through aptitude (HSWC); • Vocational Support (case by case but budgeted each year), Institution (e.g. supply gas and materials), Local Contest (e.g. travel expense), International Contest (e.g. travel expense); • Student Memberships (evaluated each year); • Student Chapter (evaluated each year); • Technical and Educational Opportunities.

November Hotline

Rumor has it that **GES** and **RAM Solutions** will be hosting the **AWS Detroit Technical Night** in February and March. Warren Peterson has been working out the details in preparation of the events.

Word from District Director Phil Temple

- **Free student memberships** are available as of July 1st. Applications are online only, or by an instructor completing a spreadsheet with the required information for AWS. Initiative was due to District Directors focusing on showing students the value of AWS, along with getting them engaged so when they graduate, they will obtain full membership.
- **Welder Training Scholarships** have been awarded – all 25 of the original allotment and one more to award with five applicants. All five competition scholarships awarded (three to Monroe County Community Colleges competition and 2 to competitors from the Detroit High School Welding Competition)
- **Intellectual Property Rights:** Long-standing lawsuit against technical societies was adjudicated and not in favor of the organizations. Ruling is being appealed and AWS hosted a BOD Task Group to determine how to respond. This could lead to all Codes and Standards that have been 'Incorporated By Reference' to be free to anyone – This could lead to a potential financial problem.
- **Qualification and Certification of Weld Inspectors:** This area is threatened by outside interests. New certification is being developed in conjunction with other technical societies as an "Owner Inspector Certification" program. This is showing interesting from national companies that hire and train inspectors; having a national program with standards developed by AWS and other technical societies is helping them to locate and hire inspectors that have technical abilities without the need to develop expensive training programs.

Ladies Night

Russell Webster has announced that the budget is in place and he is now working out the details of the black tie gala scheduled for April 13th at the Athenium Hotel (Greektown). Hopes are high that the view, different from past years, will be an eye pleaser. Forty-two tables are available for seating, and hotel rooms will be available to book at a discounted price in November. Anyone with questions are asked to reach out to Russell for more information. awsdetroitregistration@awsdetroit.org. For overnight reservations call (313) 962-2323 or online : [Click Here](#).

2024 Ladies Night Scholarship Gala
Detroit Section

WHERE: The Athenium NEW VENUE!
WHEN: Saturday, April 13th, 2024 SAVE THE DATE!

For more information, contact awsdetroitregistration@awsdetroit.org

For overnight reservations call (313) 962-2323
Or Online: <https://www.aawsonline.com/>

cocktails 6:30 am - 7:00 am
Dinner and Program 7:00 am - 9:30 am
Afterglow Dancing 9:30 am - 12:00 am

Affiliate Council – Ray Roberts

The Affiliate Council Meeting was held September 27th meeting by Zoom and in-person at HQ in Southfield. Open discussion on Energy and Mobility Technology conference in Cleveland, OH were had and the conference utilized a number of speakers and lecturers. NASA had two aircraft with electrification. Lectures also included Bio-fuel, Green Hydrogen, virtual and digital Engineering system integration to improve range, safety and cost of vehicles. Also making solar energy more efficient and what improvements need to be made to increase the range of our vehicles.

Continued on page 5



- ARO Welding Technologies, Inc.**
- CenterLine (Windsor) Ltd.**
- Changer & Dresser Corp.**
- David Williamson**
- Dengsha America Corp.**
- Employees of United Technical, Inc.**
- Forrest Lissner**
- Fronius USA, LLC**
- FUSION Welding Solutions**
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- LeTourneau University**
- Welding Engineering Alumni**
- Luvata**
- Milco Manufacturing, Inc.**
- Obara Corp. USA**
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- RoMan Manufacturing**
- SDK Engineering**
- Stephen Gucciardo**
- The Ohio State University**
- Welding Engineering Alumni**
- United Technical Inc.**
- United Technical Solutions**
- Vector NDT**
- Welform Electrodes, Inc.**
- WSI, Weld Systems Integrators, Inc.**

Patron's Fund Donations

Thank you for your support! ONE HUNDRED PERCENT of the Patron's Fund Donations are directed to scholarships for students who are pursuing careers in Welding Engineering and Welding Technology. To become a Patron, contact Steve Gucciardo, AWS Detroit Section-Patron's Committee Chair, 810-623-6508 or email gucciardos@shapecorp.com

AWS Detroit Section Presents

Holiday Party

@ Legendary Axe
in Westland

Saturday, Dec 2nd, 2023

1pm to 4pm

RSVP by

November 24th at:

eventsquid.com/event/22109

Tickets Starting at \$75/person

Food, Drinks, and Dessert

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NOVEMBER HOTLINE

continued from pg 2

Executive Committee Meeting

Todd Horseman has arranged for the November Executive Committee Meeting on November 2nd at the Masters Restaurant in Madison Heights, where executive committee members are expected to be served potato skins and chicken fingers, with coffee, tea, and soda for refreshments as the team discusses how to promote the AWS mission.

AWS Detroit Holiday Party

Erin Lalinski has put together this year's event at Legendary Axe Throwing. Brian Peterson is helping set up the webpage for the event being held on December 2nd from 1-4pm. Buffalo plaid attire is requested, though it's understood that not everyone has such ensembles. If you would like to sponsor a student for the event, please reach out to Erin. AWS Detroit is trying to encourage more students to join our section, one way is to get them involved with our events. Thanks in advance!

Excellence in Welding

Sarah Walker, AWS Detroit Executive Committee Member, has been very active this season. Working with a local high school and 4 Oakland County School Campuses, she is spreading the word of what our industry is, and that there is a high demand for skilled trades in our area. From working with schools to bring in celebrity talent like Stephany Hoffman and Mike Rowe, to fabrication and skills competitions, she is getting kids excited about manufacturing and showing them that welding is fun!

Student Night 2023 was a Success!

Don Maatz thanks the entire team, and especially those who were at the meeting and lent a hand. He said "It could not have happened without you!" Also, special thanks to Liz Lekarczyk and Bob Wilcox for working the front table and helping to organize all of the awards. It was the inaugural awarding of the Robert P. and Mardell D. Wilcox Scholarship, and The Mardell D. Wilcox Scholarship. [Watch for the student's thank you letters to be posted here, in the eBulletin.](#)

Coming Events

Holiday Party

Saturday, December 2, 2023

1 to 4 pm

Legendary Axe

37550 Cherry Hill Rd., Westland, MI

January Technical Meeting

TBD

February Technical Meeting

Gestamp

March Technical Meeting

Ram Solutions

2024 Ladies' Night

April 13, 2024

May Technical Meeting

TBD

CWI Seminar: May 5 - 10, 2024

Exam: May 11, 2024

Detroit Metro Airport Marriott



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Questions? Contact: Ryan Cooper, Great Lakes Regional Sales Manager
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Featured Article
Eric Lichtfusz
AWS/CWI 09070281
eric.lichtfusz@roush.com

What do I need to provide?

If you're an AWS CWI®, whether independent or you're on staff with a company, your duties can vary greatly from day to day. As an independent contractor you may get called in to an organization or company to inspect their weldments prior to shipment to a customer. Or you could get called in to simply (that's sarcasm, because this isn't simple) observe their processes and make recommendations. On the other hand, you may be contracted to help a company get their entire welding department ready to perform "code" work. Essentially you would be developing their entire welding program.

You could have similar responsibilities if you're on staff with a company. As a company's on-staff CWI® your role could be very defined, and you may only (again, sarcasm) have inspection duties. Or, you may have very broad duties ranging from overseeing the entire welding department, hiring welders and NDE staff, training welding and NDE personnel, maintaining those records, maintaining qualification of personnel and procedures, maintaining the standards library, review of internal and external contract documents and drawings, etc., the list could go on and on.

Whichever the case may be, undoubtedly someone will ask you a question like, 'what kind of paperwork will you need from me?' or "What am I going to need to provide?' If you've been a CWI® for more than a week you've probably already heard this question. So, how do you answer it? Now, understand that the person asking likely has no idea what you're about to unload on them. You need to be careful with your answer(s) because if it's too long or overly complicated you'll end up with nothing because you lost them in the first few words, so they tuned you out. But, if your answer is too short, you'll also get nothing, most likely because you left out important details. So, just like in the Goldilocks and the Three Bears story, your answer needs to be 'just right'.

Let's just discuss a few possible hypothetical scenarios. Let's say a potentially new customer, we'll call them Newbee LLC, is designing a weldment, but has very little, if any, experience with welding. Let's assume you work for a company, we'll call it Arc World LLC, whose primary source of revenue is producing weldments. Newbee LLC approaches Arc World LLC with a request for a quote (RFQ) on this weldment. They submit a drawing of this weldment, and part of your assignment with Arc World LLC is contract review, which includes reviewing drawings for RFQs. As you start your review, hopefully the first thing you look for are the drawing notes where you should be able to determine what the welding requirements are. You would expect to find something like 'WELD IN ACCORDANCE WITH AWS D1.1/D1.1M:2020' or something along those lines. You would then look at your Bill of Materials (BOM) to verify the weldment is in fact being manufactured from steel. Then you would presumably start reviewing the drawing for welding symbols.

But what if you don't see any reference to a national or international welding standard. In fact, there's no reference to a corporate standard either. There's a note stating that welds must be inspected and accepted by a qualified individual. There's another note that states root passes require visual inspection and magnetic particle inspection prior to completing the welds. The same note goes on to say that all final welds must be visually inspected and magnetic particle inspected immediately after welding and held at a constant temperature. And there's only one welding symbol that looks something like those represented in AWS A2.4 Standard for Welding, Brazing, and Nondestructive Examination, but doesn't exactly follow that standards convention. And in the tail note of this one welding symbol, it says something like 'TYPICAL'. Now what do you do? Because as you review this drawing you see dozens of components that look like they interface at what could be welded connections, but they're not all identical. As you're probably aware, when using 'typical' in the tail note, A2.4 requires that the weld joints be identical in ALL details.

Well by now, hopefully you've started to write out questions that will go back to Newbee LLC. And remember, baby steps here. There is a lot going on in this scenario, but too many questions all at once will probably overwhelm your potential customer. Although you may be presenting all your questions at once, it will be important to let Newbee LLC know that you are going to review these with them one at a time. A well thought out question, phrased correctly, may provide an answer to several questions.

So, in this hypothetical situation you should be asking to what standard the weldment is being produced. If AWS D1.1 seems like a good fit. Maybe you suggest their engineers review this standard for applicability. If it's agreed that D1.1 is a good choice, that will establish all drawing symbols must be those shown in A2.4 and must be fully explained. That means all the welded connections need to be identified for welding and NDE as applicable. Now you'll need to work with their engineers to identify all the welded connections and assign the proper welding symbols. You could possibly offer to create an Arc World LLC shop drawing that would contain all the necessary information for your company to manufacture and inspect the weldment they anticipate. And with that one question answered you have your design criteria, qualification and manufacturing criteria and acceptance criteria all established.

You'll then need to have them tell you what they consider a "qualified individual" for inspection is. And remember that visual inspection and NDE inspection could require more than one person. If the weldment is going to be used outside of the U.S.A. an inspector with international credentials may be needed. Then you'll also want them to explain the note regarding visual inspection and magnetic particle inspection immediately after welding. You may be tempted to ask several questions on this note alone. Like, 'Do you mean that I need to monitor the weldment temperature and as the welding has been completed, visual inspection and magnetic particle inspection needs to be performed at possibly 1100 degrees F?' and 'Do you want this to be performed this way at every weld joint?' and 'when you say constant temperature, do you mean constant for all of the welded connections or constant as each individual welded

Continued on page 8

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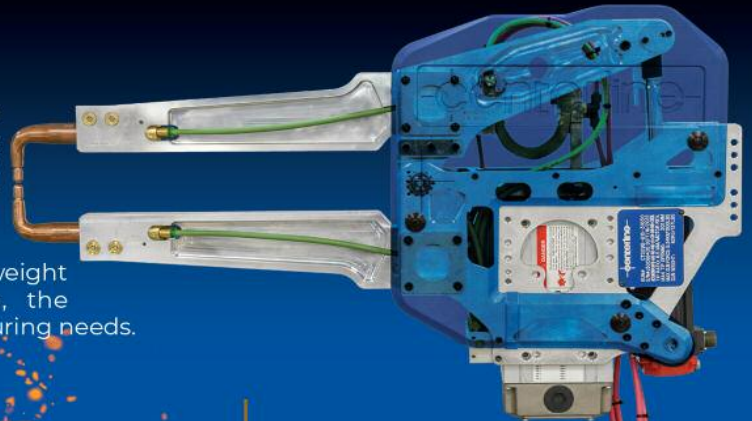
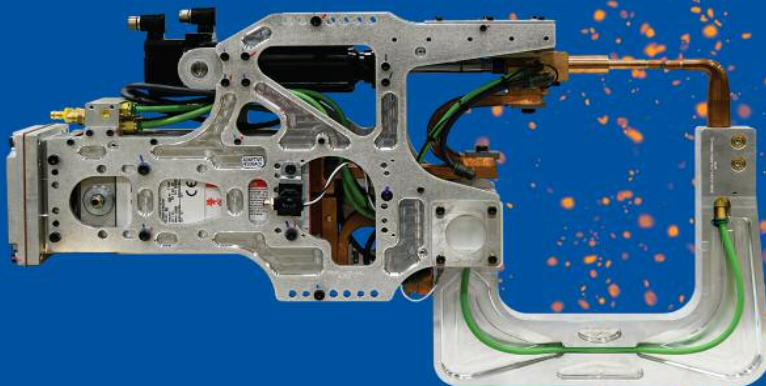
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FEATURED ARTICLE *continued from pg 6*

connection is completed?’ and ‘Is there a temperature that you would like us to hold during inspection?’ There’s too much detail in all these questions to unpack at once. Newbee LLC will probably not understand the basis for these questions. Explain to your potential customer about safe temperature handling practices and that elevated temperature inspection is typically performed on weldments that will be used at elevated temperatures in service. That may not be the case with this weldment, and they may not have understood the complexity of those notes.

The thing to remember is Newbee LLC is potentially hiring Arc World LLC for the welding expertise. A slow and methodical approach is best when dealing with this type of situation. Sorting through issues one by one and providing a basis for the questions is going to help your customer develop a better understanding of the questions you ask. The design team at Newbee LLC may have been researching how to develop weldment drawings and were led to believe these notes are standard notes that belong on a weldment drawing. Or, they may have been provided with some of these requirements from their customer. It’s your responsibility as a certified welding inspector to make sure your customer understands what you need to know and why you need to know it so that all parties have a clear and comprehensive understanding of the product that is to be produced.

Of course, this was just a hypothetical example. Your situation could be much less complicated, but it could also be far more complicated. Either way, working your way through from the most important aspect to the least in a methodical approach will likely win you business through the confidence you instill in your customer.

If this subject and others like it are interesting to you and you’re not already an AWS CWI, why aren’t you? If becoming a CWI is a career path that you would like to pursue, the AWS-Detroit Section typically hosts two AWS CWI Seminar/Exams yearly. The next seminar/exam dates and location for 2024 are as follows:

CWI Seminar May 05 – 10, 2024

Exam May 11, 2024

Detroit Metro Airport Marriott

Address: 30559 Flynn Dr, Romulus, MI 48174

Phone: (734) 729-7555

Check the AWS-Detroit e-Bulletin often for other helpful information, at awssection.com/detroit/. For more information on how to become properly trained and certified by the American Welding Society and to register, you can visit www.aws.org/certification.

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Thank You

AMERICAN WELDING SOCIETY



Michael Garzelloni
Muskegon, MI
Wayne State University
Welding and Metallurgical Engineering Technology
Amos & Marilyn Winsand Scholarship (Detroit Section)
District 11 - 051-West Michigan

Dear American Welding Society Scholarship Committee and to the AWS Detroit Section,

I am writing to express my sincere gratitude for being selected as a recipient of the Amos & Marilyn Winsand Scholarship and to convey how deeply honored I am to have been chosen for this award. I am truly humbled by your generosity and support towards my higher education. This scholarship has not only provided me with financial assistance but has also motivated me to strive for excellence and to be an active contributor to the American Welding Society. I promise to work hard, remain focused, and uphold the values that this scholarship represents. Once again, I would like to express my deepest gratitude to you and your esteemed organization for your unwavering commitment to supporting students like me in their pursuit of higher education.

AWS American Welding Society®
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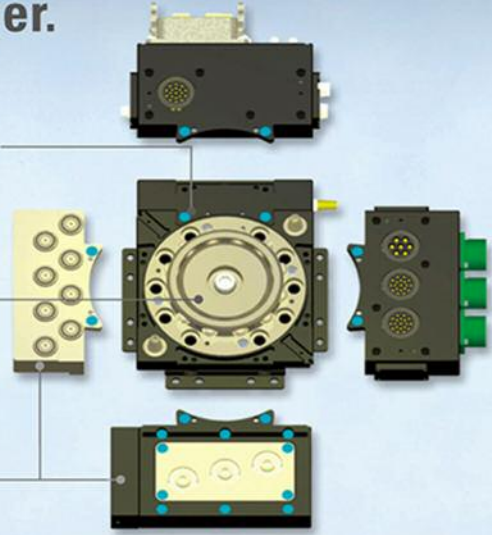
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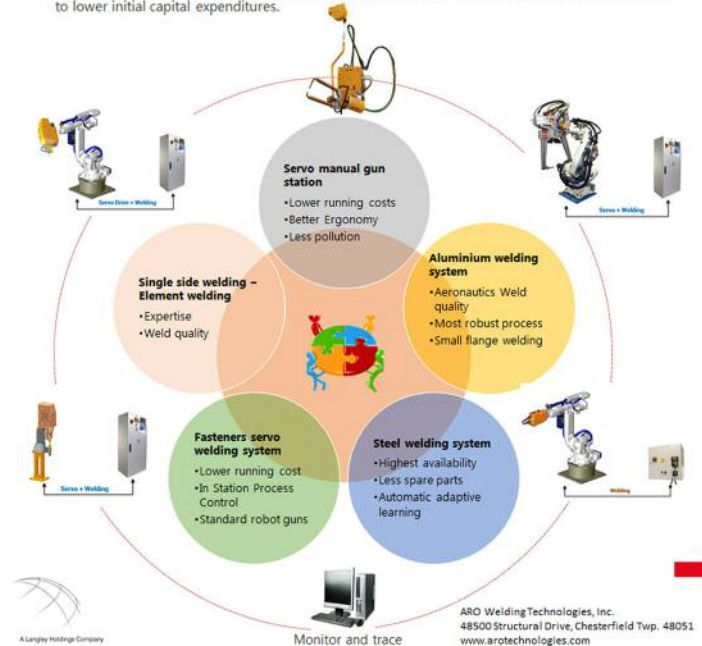


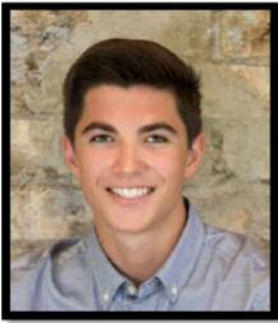
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Connor Gibbs
 Mecosta, MI
 Ferris State University
 Welding Engineering Technology
 Detroit Section Scholarship
 District 11 - 051-West Michigan

Thank You **AMERICAN WELDING SOCIETY**

I am writing to express my gratitude for being awarded this scholarship. I will be an incoming junior in the Welding Engineering program at Ferris State University. This scholarship is the reason I am able to pursue this career at such a great school, and I am beyond grateful for this opportunity and everything your organization has done for me. Being a welding engineer became a dream of mine ever since I learned about it back in high school. I loved how it has a combination of using hands-on skills while still needing to have great theoretical knowledge. I hope one day to make a difference as a welding engineer, but also continue in improving education in the welding field and bring opportunities to kids as it was given to me. Thank you again for this support.



Luke Fountain
 Ludington, MI
 Ferris State University
 Welding Engineering Technology
 Detroit Section Scholarship
 District 11 - 051-West Michigan

Thank You **AMERICAN WELDING SOCIETY**

Dear Detroit Section Scholarship Committee,

I am honored to be receiving the Detroit Section Scholarship. I am currently enrolled in the Welding Engineering Technology program at Ferris State. I will be a senior in the program this fall, and receiving this scholarship will help me cover some of my tuition costs for the upcoming academic year. I am currently a part of the Ferris State Club baseball team and the American Welding Society student chapter. Looking ahead, I want to obtain my bachelor's degree from the welding program and work towards a Master of Engineering or Business degree. I am not sure where I will go after graduating from Ferris State, but I am excited for the road ahead. Thank you so much for picking me to be a part of the Detroit Section Scholarship and for helping support me in achieving my future academic goals.

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