

IAN EDHLUND

864-376-3718

iedhlun@clemson.edu

EDUCATION

- Clemson University- *Clemson, SC* Expected Graduation Spring 2019
- PhD Candidate, Environmental Toxicology
- University of Wisconsin - Stout- *Menomonie, WI* 2010
- M.S., Manufacturing Engineering
 - Graduate Certificate in LEAN Manufacturing
- Metropolitan State University- *St Paul, MN* 2004
- B.A., Aviation and Information Systems Management
- Century College- *Maplewood, MN* 2002
- A.S., Software Technology

RESEARCH EXPERIENCE

Edhlund, I. (In Progress). *Data driven methods for the development and optimization of physiologically based toxicokinetic (PBTK) and toxicodynamic (PBTK-TD) models.* (Doctoral Dissertation).

Edhlund, I., Sweet, L., Stocynski, L., Bisesi, J., Lee, C. Physiologically based toxicokinetic – toxicodynamic modeling of hybrid striped bass (*Morone saxatilis* x *Morone chrysops*) exposed to antidepressants and antidepressant mixtures.

van den Hurk, P., Edhlund, I., DeLorenzo, M., Lionfish (*Pterois volitans*, *Pterois miles*) as biomarkers for PAH exposure.

COURSES TAUGHT

- Data Analysis Methods in Automated Inspection 2016
- Optimizing Recipes for Image Blobbing in Visual Inspection 2015

PUBLICATIONS AND PRESENTATIONS

Peer-Reviewed Publications

Edhlund, I., Lee, C. (under review). A Petri Net Approach to Physiologically Based Toxicokinetic (PBTK) Modeling. Integrated Environmental Assessment and Management.

Edhlund, I., Macauley, M., Lee, C. (in preparation). Computational methods for PBTK model selection and parameter optimization.

Presentations

Edhlund, I., Lee, C. (2018). Parameter optimization and statistical analysis of PBTK models for fluoranthene exposure in rainbow trout. Poster to be presented by Dr. Cindy Lee at the SETAC North America 39th annual meeting, Sacramento, CA.

Edhlund, I. (2018). Parameter optimization in physiologically based toxicokinetic (PBTK) modeling. Poster presented at the 3rd annual Clemson biological sciences retreat, Asheville, NC.

Edhlund, I. (2016). A Petri net model for physiologically based toxicokinetics (PBTK) of waterborne fluoranthene in rainbow trout. Talk presented at the 7th SETAC world conference, Orlando, FL.

SERVICE

- SETAC Member
- EAA Member: former editor EAA Chapter 54 newsletter, former webmaster
- Former member UW-Stout collegiate water ski team
- Languages: English (Fluent), Spanish (Moderate); Extensive travel resume

HONORS AND AWARDS

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| 3M Circle of Technical Excellence & Innovation Award | 2017 |
| 3M Eco Grant | 2015 |
| 3M Pollution Prevention Pays Award | 2015 |
| 3M Energy Management Award | 2012 |
| 3M Golden Step Award | 2011 |

INDUSTRY EXPERIENCE

- Advanced Inspection Engineer– 3M Greenville 2010-Present
- Lead and mentor project teams to drive quality and process improvement through generation and interpretation of big data
- Application Engineer– 3M St Paul 2006-2010
- Envisioned and designed automated inspection equipment for a variety of processes and locations
- Software Architect - Greatmats.com 2005-2006
- Developed and implemented an integrated ERP system for an online retailer
- Residential Contractor / Owner - Edhlund Construction, LLC 2003-2005
- Supervised employees and subcontractors, specialized in sustainable and efficient construction
- Technical Editor - Minnesota Department of Transportation 2000-2003
- Developed training material and provided instructor support for the office of technical certification

INDUSTRY PRESENTATIONS AND PATENTS

Presentations – (Titles and content of presentations omitted due to proprietary information)

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| Partner Division Quality Conference, Greenville, SC | 2018 |
| DMSD PSD Conference, Menomonie, WI | 2017 |
| DMSD PSD Conference, Greenville, SC | 2017 |
| Inspection and Diagnostics EMTC Meeting, St Paul, MN | 2017 |
| Asia-Pacific Executive Quality Conference, Greenville, SC | 2017 |
| Fundamentals of Oriented Films Symposium, Greenville, SC | 2016 |
| Filtration and Melt Processing Conference, St Paul, MN | 2016 |
| Supply Chain Executive Conference, Greenville, SC | 2016 |
| FMSCO Communications Meeting, Greenville, SC | 2016 |
| EMTO Technology Exchange, St Paul, MN | 2015 |
| 3M Korea Customer Quality Symposium, Greenville, SC | 2015 |

Patents

Floeder, S., Rowekamp, N., Yu, X., Masterman, J., **Edhlund, I.**, Flanzer, M., Daniels, S., Rundquist, M. (2015). Machine Direction Line Film Inspection System. Patent pending.

TECHNICAL SKILLS

Data Architecture and Engineering

- Create novel ways to process big data into robust information that may be relied upon for decision making
- Large scale, high profile, high impact project management
- Development, application, and administration of automated inspection and quality control systems
- Using six sigma and LEAN methodologies to maximize efficiency

Leadership, Mentoring, and Project Management

- Instruction and development of training materials
- Demonstrated ability to effectively lead projects and teams
- Able to convey ideas to senior executives through presentations and reviews
- Turn ideas into reality through creative thinking, hard work, and determination
- Portfolio of several high-profile projects (\$1MM+) completed successfully

Computer Programming

- Proficient in: Python, LabView, PHP, HTML, MATLAB, Petri Net, C#, C++, R, Visual Basic, Java, and Assembly languages; MySQL, Microsoft SQL Server, and Microsoft Access databases; Windows, Linux, UNIX, Apache, and IIS platforms;
- Other: network, application, and server administration; CAD, Adobe Photoshop, video editing, web development

Licenses / Certificates

- SSI Open Water Instructor, specialty instructor for: Dive Guide, Stress & Rescue, Nitrox, Deep, Night, Wreck, Navigation, Perfect Buoyancy. PADI Advanced Open Water Diver; Extensive diving experience, including field research
- Private pilot single engine land (PSEL) with high performance / complex endorsement: IFR and multi engine training; Flight Safety King Air training program
- Certified LabView developer (CLD) & certified LabView associate developer (CLAD)
- Microsoft Certified Systems Engineer (MCSE) & RedHat System Technician (RHCT)
- ISO 14001 Environmental Auditor