#### Michael John Decker

# I. Academic Degrees

•	Ph.D.	Computer Science	Kent State University	Summer 2017
•	M.S.	Computer Science	The University of Akron	Summer 2012
•	B.S.	Computer Science	The University of Akron	Spring 2010

#### II. Academic Positions

- A. Teaching Positions
  - Assistant Professor, Bowling Green State University, Fall 2017

### III. Non-academic Positions

 Lead Software Developer. srcML open-source project funded by NSF CNS 13-05292/05217. 8/2013 -7/2014

# IV. Teaching Experiences

- A. Undergraduate Courses
  - a. Bowling Green State University
    - CS 2010 Programming Fundamentals, Spring 2020
    - CS 2020 Intermediate Programming, Spring 2020, Spring 2021
    - CS 3060 Programming Languages, Spring 2018
    - CS 3540 Introduction to Software Engineering, Spring 2019 (2 sections), Fall 2019,
  - b. Kent State University
    - CS 13001 CS I Program & Problem Solving (C++), Fall 2012
    - CS 23001 CS II Data Structures & Abstraction (C++), Spring 2017
    - CS 23001 CS II Data Structures & Abstraction (C++) (Lab Instructor), Spring 2012, Spring 2016, Fall 2016
    - CS 33901 Software Engineering, Fall 2015, Kent State University
  - c. The University of Akron
    - 3460 209 Introduction to Computer Science (Java), Spring 2011
    - 3460 306 Assembly Language Programming, Fall 2010
- B. Undergraduate-Graduate Courses
  - a. Bowling Green State University
    - CS 4050/5050 Research Methodology in Computer Science, Fall 2018, Fall 2020
    - CS 4550/5550 Software Architecture and Design, Fall 2020
    - CS 4560/5560 Software Testing and Quality Assurance, Fall 2017, Fall 2018, Fall 2019, Fall 2020

### C. Graduate Courses

- a. Bowling Green State University
  - CS 6640 Advanced Software Engineering, Spring 2019, Spring 2020 (online), Spring 2021

 CS 6800 Seminar in Computer Science (Software Evolution), Fall 2017

# D. Other Teaching

- a. Courses
  - i. Bowling Green State University
    - CS 4900 Independent Project, Spring 2019, Spring 2021
    - CS 5850 Readings in Computer Science, Summer 2018, Summer 2019
    - CS 6910 Directed Research, Spring 2019
    - CS 6910 Directed Research, Summer 2018
    - CS 6990 Thesis Research, Spring 2020
- b. Undergraduate Student Mentoring
  - i. Bowling Green State University
    - Aidan White, Spring 2018, Spring 2019
  - ii. Kent State University
    - Kyle Swartz, Spring 2015, Spring 2016
    - PJ Leydon, Summer 2016 Fall 2019
- c. Graduate Student Mentoring
  - i. Bowling Green State University
  - Blake Grills, Summer 2019 Spring 2020
    - Thesis Defense, Spring 2020
  - Oluwaseun Sesan Shadare, Fall 2018 Spring 2019
  - Lydia Dugbakuor Akuaku, Fall 2018 Spring 2019
  - Andrew Hall, Spring 2018 Summer 2018
  - Tianyi Zhang, Spring 2018 Summer 2018
- E. Thesis and Dissertation Students
  - 1. Membership on Dissertation Committees:
    - i. Bowling Green State University
    - William Avila, Doctor of Philosophy in America Culture Studies, Graduate Faculty Representative, Summer 2018 -Spring 2021
      - Preliminary Examination, Fall 2018
      - Proposal Defense, Spring 2019
      - Dissertation Defense Spring 2021
    - Sara Stiltner, Doctor of Education in Leadership Studies and Policy, Graduate Faculty Representative, Summer 2018 - Fall 2019
      - Preliminary Examination, Summer 2018
      - Proposal Defense, Spring 2019
      - Dissertation Defense, Fall 2019
    - Amanda Kathleen Martin, Doctor of Philosophy in Biology, Graduate Faculty Representative, Fall, 2017 Spring 2020.
      - Preliminary Examination, Fall, 2017

- Proposal Defense, Spring 2018
- Dissertation Defense, Spring 2020
- 2. Membership on Thesis Committees:
  - i. Bowling Green State University
  - Morgan Mastrocinque, Master of Science in Computer Science, Member, Fall 2020 - Ongoing
  - Rebecca Brunner, Master of Science in Computer Science, Member, Fall 2019 - Summer 2020
  - Justin Kleinknecht, Master of Science in Computer Science, Member, Summer 2019 - Spring 2020 (after deadline).
  - Che Shian Hung, Master of Science in Computer Science, Member, Fall 2018 - Summer 2019.

## V. Curriculum Development

#### A. Courses

- a. Bowling Green State University
  - CS 4550/5550 Software Architecture and Design, Developed course materials. Fall 2020.
  - CS 4560/5560 Software Testing and Quality Assurance, Developed course materials for online format. Fall 2020.
  - CS 4/5050 Research Methodology in Computer Science, Modified and got approved for distance learning. Spring 2020.
  - CS 4550 Software Architecture and Design, Modified and got approved for distance learning. Spring 2020.
  - CS 4560 Software Testing and Quality Assurance, Modified and got approved for distance learning. Spring 2020.
  - CS 2010 Programming Fundamentals, Development of course materials. Spring 2020
  - CS 2020 Intermediate programming, Development of course materials. Spring 2020
  - CS 6640 Advanced Software Engineering, Adapt course for online delivery, and setup course materials. Fall 2019 - Spring 2020
  - CS 3540 Introduction to Software Engineering, Development of course materials. Spring 2019
  - CS 6640 Advanced Software Engineering, Development of course materials. Spring 2019.
  - CS 5560 Software Testing and Quality Assurance, Modified and got approved for distance learning. Spring 2019.
  - CS 6640 Advanced Software Engineering, Rewrote course description and content to modernize topics and to allow/get approved for distance learning, Fall 2018 - Spring 2019.

- CS 4560/5560 Software Testing and Quality Assurance, Developed and added a lab component. Developed additional and improved lecture material. Fall 2018.
- CS 4050/5050. Research Methods in Computer Science Development of course materials. Fall 2018.
- CS 3060 Programming Languages, Development of course materials.
  Spring 2018.
- CS 4560/5560 Software Testing and Quality Assurance Development of course materials. Fall 2017.
- CS 6800 Seminar in Computer Science (Software Evolution) Development of course. Fall 2017.
- CS 1010 Introduction to Programming in Python Modification of Course Syllabus. Fall, 2017.
- CS 4050. Research Methods in Computer Science Development of Course Syllabus. Fall 2017
- CS 5050. Research Methods in Computer Science Modification of Course Syllabus. Fall 2017
- b. Kent State University
  - CS 23001 CS II Data Structures & Abstraction. Developed course lecture material. Spring 2017.
  - CS 33901 Software Engineering. Developed course material. Fall 2015.
  - CS 13001 CS I Program & Problem Solving. Developed course lecture material. Fall 2012.
- c. The University of Akron
  - 3460 209 Introduction to Computer Science. Developed course lecture material. Spring 2011.
  - 3460 306 Assembly Language Programming. Updated course material for XPLAIN micro controller. Fall 2010.

## B. Workshops

 Computer Science Faculty Retreat Faculty Career Stage Workshop, Bowling Green State University. Fall 2017

## VI. Professional Development

- a. Bowling Green State University
- Building Community in a Virtual Classroom (Center for Faculty Excellence), Fall 2020
- Creating Engaging Microlearning Videos (Center for Faculty Excellence), Fall 2020
- Mandatory Reporter Training, Fall 2020
- Faculty Mentoring Program: Inclusive Pedagogy, February 20th, 2020 (attended part of event).

- Faculty Mentoring Program: Team Building and Networking, December 6th, 2019
- Mosaic: Prevent Discrimination and Harassment Together, Summer 2020.
- Mosaic: Prevent Discrimination and Harassment Together: For Supervisors Only, Fall 2019.
- Mosaic: Prevent Sexual Violence Together, Fall 2019.
- Faculty Professional Development: Inclusive Pedagogy, Spring 2020.
- Canvas 101 (Center for Faculty Excellence), Spring 2019.
- BGSU Faculty Mentoring Program, Fall 2018 Spring 2019.
- Title IX Mandatory Reporting Training, Fall 2018.
- Mosaic: Prevent Discrimination and Harassment Together: Faculty & Staff, Fall 2018.
- Mosaic: Prevent Sexual Violence Together, Fall 2018.
- Basic security training offered by Information Technology Services (ITS), Fall 2018.
- Revel Walk Through (walkthrough of Revel interactive learning environment), April 19th, 2018
- SciFri: Michael J. Zickar, 'Using Social Media to Promote Academic Department's Missions', Spring 2018.
- Faculty Mentoring Program Active Learning Classroom Workshop, Spring 2018
- SciFri: Andy Layden & the ORCA team (Physics & Astronomy) Studio Astronomy at BGSU, Spring 2018.
- BGSU Faculty Mentoring Program, Spring 2018.
- SciFri: Donna Nelson-Beene (Director, BG Perspective): 'A Conversation to Help De-Mystify Assessment', December 1, 2017.
- Mosaic: Prevent Discrimination and Harassment Together: Faculty & Staff, Fall 2017.
- Mosaic: Prevent Sexual Violence Together, Fall 2017.
- SciFri: Dara Musher-Eizenman (Psychology): 'What is all thinking were Design Thinking?: How to use DT mindsets for better teaching and better learning in your classroom', Fall 2017.
- Faculty Career Stage Workshop, Fall, 2017.
- SciFri: George Bullerjahn: 'SEA Change on Lake Erie reflections on a great summer day of science', Fall 2017.
- New Faculty Orientation, Summer 2017.
- b. Other Locations
- New Computer Science Faculty Teaching Workshop, University of California San Diego, California August 8-10, 2018.
- Introduction to POGIL Workshop, Heidelberg University. November, 4 2017.

### VII. Academic Advising

- A. Undergraduate
  - Spring 2019: 1

- Spring 2018: 1
- B. Graduate
  - Spring 2020: 1
  - Fall 2019: 1
  - Summer 2019: 1
  - Spring 2019: 2
  - Fall 2018: 2
  - Summer, 2018: 2
  - Spring 2018: 2

#### VIII. Research Interests

• Software engineering, maintenance & evolution; software change and syntactic differencing; program comprehension; source code analysis and source-code transformation; empirical software engineering

## IX. Research Projects and Grants

- A. Under Review
  - 1. SHF: Small: Utilizing Design Context to Analyze and Understand the Semantics of Identifier Naming Structures, C. Newman (PI, Rochester Institute of Technology), M. Decker (Bowling Green State University), Total: \$484,451, BGSU:208,758. Submitted: December, 2020.
- B. Unfunded
  - SHF: Medium: Collaborative Research: Supporting Automated Evolution of Large-Scale Software, J. Maletic (PI, Kent State University), M. Decker (Bowling Green State University), C. Newman (Rochester Institute of Technology), \$1,141,259. Submitted: September, 2017.
  - 2. SHF: Small: Collaborative Research: Supporting Evolution Analysis of Large-Scale Software, M. Collard (PI, The University of Akron), M. Decker (Bowling Green State University), \$460,090. Submitted: November, 2017.
  - 3. SHF: Small: Collaborative Research: Supporting Evolution Analysis of Large-Scale Software, M. Collard (PI, The University of Akron), M. Decker (Bowling Green State University), \$308,699. Submitted: November, 2018.
  - 4. CRII:SHF: Supporting Evolution Analysis and Comprehension of Large-Scale Software, M. Decker (PI, Bowling Green State University), \$175,000. Submitted: August, 2019. Low competitive.

#### X. Publications

- 1. Journal Articles
  - a. Refereed Articles
    - 5. Newman, C.D., Decker, M.J., AlSuhaibani, R.S., Peruma, A., Mkaouer, M.W., Mohapatra, S., Vishoi, T., Zampieri, M., and Hill, E., "An Ensemble Approach for Annotating Source Code Identifiers with Part-of-speech

- Tags", Transactions on Software Engineering, Submitted: November 22, 2020. 15 pages.
- 4. Ciborowska, A., Decker, M.J., Damevski, K., "Just-in-Time Adaptable Bug Localization Based on Changesets", Journal of Systems and Software, Submitted: October 30, 2020. 36 pages.
- 3. Newman, C.D., AlSuhaibani, R.S., Decker, M.J., Peruma, A., Kaushik, D., Mkaouer, M.W., and Hill, E., "On the Generation, Structure, and Semantics of Grammar Patterns in Source Code Identifiers", Journal of Systems and Software, Vol. 170 Dec. 2020, 21 pages.
- 2. Peruma, A., Mkaouer, M.W., Decker, M.J., and Newman, C.D., "Contextualizing Rename Decisions using Refactorings, Commit Messages, and Data Types", Journal of Systems and Software, Vol. 169 Nov 2020, 22 pages.
- 1. Decker, M.J., Collard, M.L., Volkert, L.G., Maletic, J.I., "srcDiff: A Syntactic Differencing Approach to Improve the Understandability of Deltas", Journal of Software: Evolution and Process, Vol. 32, No. 4, Apr. 2020, 37 pages, DOI 10.1002/smr.2226.

### 2. Conference Articles

- b. Refereed Articles
  - 14. AlSuhaibani, R.S., Newman, C.D., Decker, M.J., Collard, M.L., and Maletic, J.I., "On the Naming of Methods: A Survey of Professional Developers", in Proceedings of the 43rd IEEE/ACM International Conference on Software Engineering (ICSE'20), Madrid, Spain, May 23-29, 2021. 12 pages.
  - 13 Newman, C.D., Decker, M.J., Alsuhaibani, R., Kaushik, D., Peruma, A., and Hill, E., "An Open Dataset of Abbreviations and Expansions", in Proceedings of the 35th IEEE International Conference on Software Maintenance and Evolution, Cleveland, OH, September 30-October 4, 2019. 1 pages.
  - 12. Peruma, A., Mkaouer M.W., Decker, M.K., Newman, C.D., "Contextualizing Rename Decisions using Refactorings and Commit Messages" in Proceedings of the 19th IEEE International Working Conference on Source Code Analysis and Manipulation, Cleveland, OH, September 30-October 1, 2019. 12 pages.
  - 11. Newman, C.D., Decker, M.J., Alsuhaibani, R., Kaushik, D., Peruma, A., and Hill, E., "An Empirical Study of Abbreviations and Expansions in Software Artifacts" in Proceedings of the 35th IEEE International Conference on Software Maintenance and Evolution, Cleveland, OH, September 30-October 4, 2019. 11 pages.
  - 10. Guarnera, D.T., Collard, M.L., Dragan, N., Maletic, J.I., Newman, C.D., Decker, M.J., "<u>Automatically Redocumenting Source Code with Method and Class Stereotypes</u>", in Proceedings of the Third International

- Workshop on Dynamic Software Documentation, Madrid, Spain, September 25, 2018, pp. 3-4. (Received **Best Challenge Entry Award**)
- 9. Decker, M.J., Newman, C.D., Collard, M.L., Guarnera, D.T., Maletic, J.I., "<u>A Timeline Summarization of Code Changes</u>", in the Proceedings of the Third International Workshop on Dynamic Software Documentation, Madrid, Spain, September 25, 2018, pp. 9-10.
- 8. Newman, C.D., Dragan, N., Collard, M.L., Maletic, J.I., Decker, M.J., Guarnera, D.T., Abid, N., "Automatically Generating Natural Language Documentation for Methods" in the Proceedings of the Third International Workshop on Dynamic Software Documentation, Madrid, Spain, September 25, 2018, pp. 1-2.
- 7. Peruma, A., Mkaouer, M.W., Decker, M.J., Newman, C.D., "<u>An Empirical Investigation of How and Why Developers Rename Identifiers</u>" in the Proceedings of the 2nd International Workshop on Refactoring, Montpellier, France, September 4, 2018, pp. 26-33.
- 6. Decker, M.J., Newman, C.D., Dragan, N., Collard, M.L., Maletic, J.I., Kraft, N.A., "Which Method-Stereotype Changes are Indicators of Code Smells?" in the Proceedings of the 18th IEEE International Working Conference on Source Code Analysis and Manipulation, Madrid, Spain, September 23-24, 2018, pp. 82-91.
- DeLozier, G.S., Decker, M.J., Newman, C.D., Maletic, J.I., "<u>Leveraging the Agile Development Process for Selecting Invoking/Excluding Tests to Support Feature Location</u>" in the Proceedings of the 26th IEEE/ACM International Conference on Program Comprehension (ICPC'18), Gothenburg, Sweden, May 27-28, 2018, pp. 370-379.
- 4. Decker, M.J., Newman, C.D., Dragan, N., Collard, M.L., Maletic, J.I., Kraft, N.A.,, "Poster: A Taxonomy of how Method Stereotypes Change" in the Proceedings of the 40th IEEE/ACM International Conference on Software Engineering (ICSE'18), Gothenburg, Sweden, May 27-Jun 3, 2018, pp. 337-338.
- 3. Decker, M.J., Swartz, K., Collard, M.L., Maletic, J.I., "<u>A Tool for Efficiently Reverse Engineering Accurate UML Class Diagrams</u>", 32th IEEE International Conference on Software Maintenance and Evolution (ICSME'16), Raleigh, North Carolina, Oct 5-7 2016. pp. 607-609.
- 2. Collard, M.L., Decker, M.J., Maletic, J.I., "srcML: An Infrastructure for the Exploration, Analysis, and Manipulation of Source Code", 29th IEEE International Conference on Software Maintenance (ICSM'13), Eindhoven, The Netherlands, Sep 22-28 2013. pp. 516-519.
- 1. Collard, M.L., Decker, M.J., Maletic, J.I., "<u>Lightweight Transformation and Fact Extraction with the srcML Toolkit</u>", Eleventh IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM'11), Williamsburg, VA, Sep 25-26 2011. pp. 173-184.

#### 3. Thesis/Dissertation

- Decker, M.J., "<u>srcDiff: Syntactic Differencing to Support Software Maintenance and Evolution</u>" Dissertation, Doctor of Philosophy, Department of Computer Science, Kent State University, Kent, Ohio, 2017.
- Decker, M.J., "<u>Structural Analysis of Source-Code Changes in Large Software through srcDiff and diffPath</u>" Thesis, Master of Science, Department of Computer Science, The University of Akron, Akron, Ohio, 2012.

## XI. Papers Read to Professional Societies

## A. Refereed papers

- 7. "srcDiff: A Syntactic Differencing Approach to Improve the Understandability of Deltas" in the 36th IEEE International Conference on Software Maintenance and Evolution (Journal First Track), Adelaide, Australia, September 27-October 3, 2020
- 6. "Which Method-Stereotype Changes are Indicators of Code Smells?" in the Proceedings of the 18th IEEE International Working Conference on Source Code Analysis and Manipulation, Madrid, Spain, September 23-24, 2018
- 5. "A Timeline Summarization of Code Changes", in the Proceedings of the Third International Workshop on Dynamic Software Documentation, Madrid, Spain, September 25, 2018
- 4. "Poster: A Taxonomy of how Method Stereotypes Change", 40th IEEE/ ACM International Conference on Software Engineering (ICSE'18), May 27-June 3, 2018
- 3. "A Tool for Efficiently Reverse Engineering Accurate UML Class Diagrams", 32th IEEE International Conference on Software Maintenance and Evolution (ICSM'16), Raleigh, North Carolina, Oct 5-7 2016.
- 2. "srcML: An Infrastructure for the Exploration, Analysis, and Manipulation of Source Code", 29th IEEE International Conference on Software Maintenance (ICSM'13), Eindhoven, The Netherlands, Sep 22-28 2013.
- 1. Demonstration for "Lightweight Transformation and Fact Extraction with the srcML Toolkit", Eleventh IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM'11), Williamsburg, VA, Sep 25-26 2011.

## XII. Service

#### A. Department

- a. Committee
  - CS 1-2-3 Committee, Fall 2020
  - Continuous Improvement Committee, Since Fall 2020
  - Marketing & Communications Committee, Fall 2018
  - Marketing and Communications Subcommittee for 50th Anniversary, Fall 2018 - Fall 2019

- 50th Anniversary Committee, Fall 2018 Fall 2019
- Undergraduate Recruiting and Retention Coordinator, Since Fall 2018
- Acting Chair Search Committee Member, Spring 2018 Spring 2018
- Course Evaluation Questions Review Committee (Chair), Spring 2018 - Spring 2018
- Library Representative Fall 2017 Summer 2019
- Undergraduate Committee, Since Fall 2017
- Computer Science Advisory Board (CSAB) Since Fall 2017

## b. Course Coordinator

- CS 6640 Advanced Software Engineering Since Spring 2019
- CS 4/5050 Research Methodology in Computer Science Since Fall 2018
- CS 4/5560 Software Testing and Quality Assurance Since Fall 2018

#### c. Events

- Get with the Program (attended), Fall 2020
- Faculty Search Campus Visit Interviewer for Ming Huang, Mohammand Aminul Islam, Fei Xu, Goutam Mylavarapu, and Qing Tian
- President's Day Open House February 17th, 2020
- Preview Day December 7th 2019
- Preview Day October 19th 2019
- CS Advising Session Representative, Fall 2018
- MS Project Poster Session, Fall 2018
- Preview Day December 1st 2018
- Preview Day October 27th 2018
- Preview Day Coordinator, Fall 2018
- Graduate Student Origination Greet (attended), Fall 2018
- Get with the Program (attended), Fall 2018
- MS Project Poster Session, Summer 2018
- Commencement, Spring 2018
- MS Project Poster Session, Spring 2018
- Preview Day April 18th, 2018
- President's Day Open House, Spring, 2018
- Faculty Search Campus Visit Interviewer for Ruinian Li, William Glisson, Song Fang, and Zaobo He, Spring 2018
- Bowling Green State University, President's Day Open House, Spring 2018
- Undergraduate Committee Fall, 2017
- Graduate Student Origination Greet (attended), Fall 2017.
- Get with the Program (attended), Fall 2017.

### B. University

- Faculty Senate CS Representative, Spring 2021
- FalconBest Committee CS Representative, Summer 2019 Fall 2019

#### C. Professional

- a. Software
  - srcReader (developer). A library providing a xml text reader approach tailored to the srcML infrastructure.
  - srcUML (developer). A reverse engineering tool for UML Class Diagrams. Available under GPL at <a href="https://github.com/srcML/srcUML.git">https://github.com/srcML/srcUML.git</a>
  - srcSAXEventDispatch (developer). An event dispatching framework written on top of srcSAX for parsing srcML documents. Available under GPL at https://github.com/srcML/srcSAXEventDispatch.git
  - srcSAX (developer). A Simple API for XML (SAX) parser designed for efficient and easy parsing of srcML documents. Available under GPL at https://github.com/srcML/srcSAX.git
  - srcDiff (developer). A syntactical differencer that completely preserves source-code text (including whitespace, comments, and macros).
  - srcML (developer/provide community support). A syntactical differencer that completely preserves source-code text (including whitespace, comments, and macros).
- b. Manuscript Review
  - Science of Computer Programming, Spring 2021
  - Science of Computer Programming, Fall 2020 (3 papers)
  - 20th IEEE International Conference of Source Code Analysis and Manipulation (SCAM'20) New Ideas and Emerging Results (NIER) Track, Summer 2020.
  - Elsevier Information and Software Technology, Summer 2020
  - Science of Computer Programming, Spring 2020
  - Elsevier Information and Software Technology, Spring 2020
  - ACM Transactions on Computing Education, Spring 2020
  - Elsevier Information and Software Technology, Fall 2019
  - ACM Transactions on Computing Education, Summer 2019
  - 35th IEEE International Conference on Software Maintenance and Evolution (ICSME'19) Program Committee Tool Demonstration track, Summer 2019
  - 35th IEEE International Conference on Software Maintenance and Evolution (ICSME'19) Program Committee Late Breaking Ideas track, Summer 2019
  - IEEE Transactions of Software Engineering, Summer 2018
  - 52nd Hawaii International Conference on System Sciences (HICSS), Summer 2018
  - Journal of Software: Evolution and Process, Spring 2018
  - IEEE Transactions of Software Engineering, Spring 2018

- c. Conference/Journal Committee
  - Session chair for 20th IEEE International Conference on Source Code Analysis and Manipulation (SCAM'20)'s Dependencies Session
  - Promotions chair for 35th IEEE International Conference on Software Maintenance and Evolution (ICSME'19)
  - Website co-chair for 2019 ACM Symposium on Eye Tracking Research and Applications

### d. Other

• Final revision and proofreading of book "Some Assembly Required: Assembly Language Programming with the AVR Microcontroller" by Timothy Margush, Ph.D.

#### D. Other

 Survey of Earned Doctorates (participated). Administered by National Center for Science and Engineering Statistics - National Science Foundation

## XIII. Research or Professional Consultantships

- Contributor. Boost: Program Options Library. Fixed bug with handling of implicit values. Added testing. 2014.
- Contributor. Homebrew. Formula for installing ANTLR v2. 2014.

## XIV. Membership in Professional Organizations

- Institute of Electrical and Electronics Engineers Computer Society (IEEE-CS) -Since 2018
- Association for Computing Machinery (ACM) Since 2018

## XV. Honors and Awards

- A. Awards (List award, date, sponsor, etc.)
  - Best Challenge Entry Award for "Automatically Redocumenting Source Code with Method and Class Stereotypes", DysDoc3, September 2018
  - National Science Foundation Student Travel Support for 29th IEEE International Conference on Software Maintenance, 2013 (\$1,000)
  - National Science Foundation Student Travel Support for 27th IEEE International Conference on Software Maintenance, 2011 (\$750)
  - The Computer Science Advisory Board Scholarship (Service Award), The University of Akron, 2011-2012 (\$500)
  - Choose Ohio First Scholarship in Bioinformatics, The University of Akron, 2010-2011 (\$3,200)
  - Choose Ohio First Scholarship in Bioinformatics, The University of Akron, 2009-2010 (\$2,850)
  - The Computer Science Advisory Board Scholarship, The University of Akron, 2009-2010 (\$1,000)
  - Lubrizol Scholarship, The University of Akron, 2008-2009 (\$925)