### Marcus William Fedarko

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Education

Ph.D. Student, Computer Science University of California, San Diego Starting 9/2018 San Diego, CA

B.S. WITH HIGH HONORS, Computer Science

University of Maryland

9/2014-5/2018 College Park, MD

GPA: 3.81/4.0

Conference Presentations

1. M. Fedarko, J. Ghurye, T. Treangen, and M. Pop. "MetagenomeScope: Web-Based Hierarchical Visualization of Metagenome Assembly Graphs." Poster presented at the 25th International Symposium on Graph Drawing and Network Visualization, Boston, MA, USA, 2018.

Research Experience RESEARCH INTERN

6/2016-Present

College Park, MD

University of Maryland

- Advisors: Mihai Pop, Todd Treangen
- Designed MetagenomeScope, an interactive visualization tool for metagenome assembly graphs.
- MetagenomeScope's project page is available online at https://marbl.github.io/MetagenomeScope/.

Teaching Experience

Course Assistant

7/2018-8/2018

Woods Hole, MA

## erience Marine Biological Laboratory

- Courses: Workshop on Molecular Evolution (MOLE); Strategies and Techniques for Analyzing Microbial Population Structures (STAMPS)
- Assisted with basic logistics for both courses.
- Helped students during some of the "laboratory" sections of the STAMPS course, including tutorials on Unix and Git.
- Prepared and gave a roughly hour-long presentation (including a tutorial) on MetagenomeScope during the STAMPS course as part of Todd Treangen's session on "Graph-based variant detection and strain-level analyses."

UNDERGRADUATE TEACHING ASSISTANT

8/2016-12/2016

University of Maryland Dept. of Computer Science

College Park, MD

- Course: CMSC 330 ("Organization of Programming Languages")
- Assisted students with coursework (Ruby, OCaml, Prolog; grammars, regular languages, semantics, security) in office hours and on an online discussion board.
- Designed and graded quiz and exam questions.

Professional Experience STUDENT STAFF WRITER

1/2015-9/2017

#### University of Maryland Dept. of Computer Science

College Park, MD

- Composed and edited some thirty articles published through the department's website, annual magazine shell, and other media.
- Assisted with the logistics of various department outreach functions, including hosting the robotics team from a nearby elementary school for a day at the department.

STUDENT INTERN 5/2013–8/2014 **Axiometric** Columbia, MD

• Designed a user-friendly graphical interface in Java to an RF propagation model to assist clients in planning deployments of mesh networks of utility meters.

• Aided in the creation and maintenance of other utility meter deployment management software.

#### INTERN SOFTWARE ENGINEER

7/2012 - 8/2012

#### **Battlefield Telecommunications Systems**

Columbia, MD

- Designed a web interface using Python (Django), JavaScript, and HTML to monitor the connection strength of radio devices.
- Helped integrate this functionality into the company's existing network management user interface.

# Honors and Awards

| 1. | University of Maryland CMNS Dean's List Al                       | l Semester |
|----|--|------------|
| 2. | University of Maryland Honors College University Honors Citation | 201'       |
| 3. | Rita Colwell Travel Fellowship                                   | 201'       |
| 4. | Travel Award, U. of Michigan "Explore Graduate Studies" Workshop | 201        |
| 5. | John D. Gannon Endowed Scholarship                               | 201        |
| 6. | Corporate Partners in Computing Scholarship                      | 2016, 2017 |
| 7. | Omicron Delta Kappa National Leadership Honor Society            | 2016       |
| 8. | Northrop Grumman Scholarship for Employees' Children             | $201^{2}$  |
| 9. | University of Maryland Dean's Scholarship                        | $201^{2}$  |