Yesugen Baatartogtokh

College of Information and Computer Sciences
University of Massachusetts
Amherst MA 01003

Web: https://yesugenb.github.io/
e-mail: yesugen@umass.edu

Education

University of Massachusetts, Amherst MA — May 2024–Present
MS/PhD student advised by Prof. Yuriy Brun

Smith College, Northampton MA — Sep 2019–May 2023
B.A, Computer Science with Highest Honors & Statistical and Data Sciences
GPA: 3.91/4.00, Dean's List 2019–2021, Elected Sigma Xi
Thesis: "Aiding Users in Requirements Analysis Tasks through Color and Filtering", advised by Dr. Alicia M. Grubb

Awards

ACM SIGSOFT Distinguished Paper Award for [CV-4] (ICSE 2024)
University of Massachusetts CICS Scholarship ($5,000) - 2024
NORD/LB Student Travel Award (€500) to attend RE 2023
Smith College McKinley Honors Fellowship ($2,770) to fund senior honors thesis - 2022
Smith College Tomlinson Memorial Fund ($1,000) to cover expenses of senior honors thesis - 2022
Student Mentoring Workshop Award ($1,000) to attend ICSE 2022

Research Experience

Smith College – Department of Computer Science — Oct 2023–May 2024
Postbaccalaureate Research Affiliate
- Initiated and led the implementation of a GitLab extension aimed at seamlessly integrating software requirements into standard software development workflows
- Co-facilitated a simulation study on goal modeling's impact on decision-making, emphasizing color visualization
- Designed an enhanced external replication study to further validate the findings of my undergraduate thesis

University of Toronto – Department of Computer Science — June 2023–October 2023
Visiting Postbaccalaureate
- Developed a case study for a responsible healthcare AI system
- Captured natural language normative requirements into formal rules using SLEEC-DSL
- Coordinated with non-technical stakeholders to consolidate 233 normative requirements from nine case studies

Smith College – Department of Computer Science — Jan 2021–May 2023
Undergraduate Research Assistant
- Enhanced the BloomingLeaf goal modeling tool by extending and validating color visualization and filtering features
- Worked with team to refactor BloomingLeaf frontend to Backbone.js
- Mentored new members in goal modeling, codebase and review process, and agile development

Other Experience

Smith College – Department of Mathematical Sciences — Sep 2021–May 2023
Teaching Assistant
- Evaluated assignments and projects in Calculus I-III
- Provided feedback on student work and answered course-related questions

Smith College – Department of Computer Science Jan 2022–May 2022
Grader
- Graded assignments for an Introduction to Programming course in Python
- Provided formative near-peer feedback on code quality and style

Journal Articles

Published

[CV-1] Yesugen Baatartogtokh, Irene Foster, and Alicia M. Grubb. A Splash of Color: A Dual Dive into the Effects of EVO on Decision-Making with Goal Models. In *Requirements Engineering Journal* (**REJ**), Expected Publication Date: 2024

Conference Papers

Published

[CV-2] Yesugen Baatartogtokh, Irene Foster, and Alicia M. Grubb. An Experiment on the Effects of Using Color to Visualize Requirements Analysis Tasks. In *Proceedings of the IEEE 31st International Requirements Engineering Conference* (**RE**), pages 146–156, 2023. Acceptance rate: 23.9%
Supplemental Material: https://doi.org/10.35482/csc.002.2023

[CV-3] Yesugen Baatartogtokh, Irene Foster, and Alicia M. Grubb. Visualizations for User-supported State Space Exploration of Requirements Models. In *Proceedings of the IEEE 31st International Requirements Engineering Conference* (**RE**), pages 281–286, 2023. Acceptance rate: 39%
Supplemental Material: https://doi.org/10.35482/csc.003.2023

[CV-4] Nick Feng, Lina Marsso, Sinem Getir Yaman, Yesugen Baatartogtokh, Reem Ayad, Victória Oldemburgo de Mello, Beverley Townsend, Isobel Standen, Ioannis Stefanakos, Calum Imrie, Genaina Rodrigues, Ana Cavalcanti, Radu Calinescu, and Marsha Chechik. Normative Requirements Operationalization with Large Language Models. In *Proceedings of the 46th ACM International Conference on Software Engineering* (**ICSE**), 2024. ACM SIGSOFT Distinguished Paper Award.

[CV-5] Nick Feng, Lina Marsso, Sinem Getir Yaman, Isobel Standen, Yesugen Baatartogtokh, Reem Ayad, Victória Oldemburgo de Mello, Beverley Townsend, Hanne Bartels, Ana Cavalcanti, Radu Calinescu, and Marsha Chechik. Analyzing and Debugging Normative Requirements via Satisfiability Checking. In *Proceedings of the IEEE 32nd International Requirements Engineering Conference* (**RE**), 2024

Other Peer Reviewed Contributions

Published

[CV-6] Yesugen Baatartogtokh and Irene Foster. Visualizations and Filtering to Help People Find their Path. In *Proceedings of the 54th ACM Technical Symposium on Computer Science Education* (**SIGSCE**), page 1239, 2023

Talks

[T-1] An Experiment on the Effects of Using Color to Visualize Requirements Analysis Tasks
- At the IEEE 31st International Requirements Engineering Conference (**RE**), Research Track, Hannover, Germany, September 7, 2023.

[T-2] Visualizations for User-supported State Space Exploration of Requirements Models
- At the IEEE 31st International Requirements Engineering Conference (**RE**), RE@Next! Track, Hannover, Germany, September 7, 2023

[T-3] A Splash of Color: A Dual Dive into the Effects of EVO on Decision-Making with Goal Models
- Invited talk of [CV-1] draft at University of Massachusetts, Amherst, MA, USA, March 7, 2024

Posters

[P-1] Yesugen Baatartogtokh and Irene Foster. Visualizations and Filtering to Help People Find their Path. In *Proceedings of the 54th ACM Technical Symposium on Computer Science Education* (**SIGSCE**), page 1239, 2023

[P-2] Yesugen Baatartogtokh, Irene Foster, Venus Nguyen, and Thu Tran. Implementing Intention Filtering and EVO in Next State. In *Celebrating Collaborations*, 2022 at Smith College

[P-3] Kathleen Hablutzel, Ali Eshghi, Ester Zhao, Isabella Brody-Calixto, Yanning Tan, and Yesugen Baatartogtokh. Restructuring Model Analysis Features to Support Multiple Analysis Configurations in BloomingLeaf. In *Celebrating Collaborations*, 2021 at Smith College