

# Vlas Zyrianov

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## EDUCATION

<b>University of Illinois at Urbana-Champaign</b>	2020-2025
Ph.D. studies in Computer Science (in progress, GPA: 3.9).	
<b>Kent State University</b>	2019-2020
B.S. in Computer Science, Summa Cum Laude (GPA: 3.9).	
<b>Kent Roosevelt Highschool, Ohio College Credit Plus Program</b>	2016-2019
Dual enrolled at Kent State University and high school (GPA: 3.9).	

## PUBLICATIONS

### Conference Papers

Vlas Zyrianov\*, Henry Che\*, Zhijian Liu, Shenlong Wang (2025). “LidarDM: Generative LiDAR Simulation in a Generated World” in the Proceedings of the IEEE International Conference on Robotics and Automation (ICRA), Atlanta, GA, May 19-23.

Xiyue Zhu, Vlas Zyrianov, Zhijian Liu, Shenlong Wang, (2023) “MapPrior: Bird’s Eye View Perception with Generative Models” in the Proceedings of the International Conference on Computer Vision (ICCV), Paris, France, Oct. 4-6.

Vlas Zyrianov, Xiyue Zhu, Shenlong Wang, (2022) “Learning to Generate Realistic LiDAR Point Clouds”, in the Proceedings of the European Conference on Computer Vision (ECCV), Tel Aviv, Israel, Oct. 23-27.

Vlas Zyrianov, Drew T. Guarnera, Cole Peterson, Bonita Sharif, Jonathan I. Maletic, (2020) “Automated Recording and Semantics-Aware Replaying of High-Speed Eye Tracking and Interaction Data to Support Cognitive Studies of Software Engineering Tasks,” in the Proceedings of the 36<sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME), Adelaide, Australia, Sep. 27-Oct. 3, 10 pages.

- 25% Acceptance Rate
- Received ICSME 2020 IEEE TCSE *Distinguished Paper Award*

Vlas Zyrianov, Christian D. Newman, Drew T. Guarnera, Michael L. Collard, Jonathan I. Maletic, (2019) “srcPtr: A Framework for Implementing Static Pointer Analysis Approaches,” in the Proceedings of the 27<sup>th</sup> IEEE International Conference on Program Comprehension (ICPC), Montreal, Canada, May 25-26, pp. 144-147.

Bonita Sharif, Cole Peterson, Drew T. Guarnera, Corey Bryant, Zachary Buchanan, Vlas Zyrianov, Jonathan I. Maletic, (2019) “Practical Eye Tracking with iTrace,” in the Proceedings of the 6<sup>th</sup> ACM International Workshop on Eye Movements in Programming (EMIP), Montreal, Canada, May 27, pp. 41-42.

### Journal Papers

Vlas Zyrianov, Cole S. Peterson, Drew T. Guarnera, Joshua Behler, Gabriel Weston, Bonita Sharif, Jonathan I. Maletic, (2022) “Déjà Vu: Semantics-Aware Recording and Replay of High-Speed Eye Tracking and Interaction Data to Support Cognitive Studies of Software Engineering Tasks – Methodology and Analysis,” Journal of Empirical Software Engineering.

### Conference Presentations

Julia Levashina, Christopher Hartwell, Michael C. Campion, Emily Campion, Vlas Zyrianov, Michael A. Campion (2022, April). Validity and gender differences of algorithmic and human interview ratings. In

J. Levashina and S. Baumgartner (Co-chairs). New Developments in Structured Interviews: From AI to Technical Interviews [Symposium]. In the 37<sup>th</sup> Annual Conference of the Society for Industrial & Organizational Psychology, Seattle, WA, April 27-30.

Neil Morelli (Chair), Joshua S. Bourdage (Moderator), Christopher Hartwell (Moderator), Julia Levashina (Moderator), Kate Malter McLean (Moderator), Vlas Zyrianov (Moderator). (2024). Modern Interviewing Roundtable: Best Practices for Remote and AI-Assisted Interviews [Alternative Session Type]. Society for Industrial and Organizational Psychology Annual Conference, Chicago, IL, United States.

## INDUSTRY EXPERIENCE

**Software Intern (Vulkan/SPIR-V Compilers Team)** Jun 2024-Aug 2024  
*Nvidia*, Santa Clara, CA

- Worked on SPIR-V compiler codebase and verified changes through tracking driver performance and conformance testing.

**Software Intern (Vulkan/SPIR-V Compilers Team)** May 2022-Jul 2022  
*Nvidia*, Santa Clara, CA

- Worked on setting up a new compiler pipeline and adding features to SPIR-V compiler using C++ and LLVM.

**Software Intern (Vulkan/SPIR-V Compilers Team)** May 2021-Jul 2021  
*Nvidia*, Santa Clara, CA

- Optimized memory allocation and improved shader compilation time by 8.5%.

**Software Engineer** Jun 2020-Jul 2020  
*AiR Everywhere (Augmented Reality Startup)*, Kent, OH

- Developed ASP.NET Core backend with Dynamo DB database and Blazor frontend.

**Software Engineer Intern** Jan 2020-Jun 2020  
*AiR Everywhere (Augmented Reality Startup)*, Kent, OH

- Developed ASP.NET Core backend running on AWS with Unity Frontend.

## TEACHING EXPERIENCE

**Graduate Teaching Assistant for CS446: Machine Learning** Aug 2022-Dec 2022  
*University of Illinois at Urbana-Champaign*

- Developed assignments, managed grading process, and helped students in office hours.

**Lead Graduate Teaching Assistant for CS225: Data Structures** Aug 2021-Dec 2021  
*University of Illinois at Urbana-Champaign*

- Gave weekly lectures to a lab of 191 students; managed 2 graduate Teaching Assistants and 4 undergraduate Course Assistants during the lab.

**Graduate Teaching Assistant for CS225: Data Structures** Aug 2020-May 2021  
*University of Illinois at Urbana-Champaign*

- Gave weekly lectures (91 total students across 3 labs in Fall and Spring semester); managed undergraduate Course Assistants during labs.

**Substitute Lecturer for CS II Data Structures & Abstraction (CS23001)** September 30, 2019  
*Kent State University*

- Gave one lecture on dynamic memory and RAII in C++ to a class of 70 students.

**CS II Lab Instructor Assistant**

Jan 2018-May 2018

*Kent State University*

- Assistant for once-a-week lab during the spring term.

**Substitute for CS II Lab Instructor**

October 6, 2016

*Kent State University*

- Gave one talk on pointers and answered questions.

**SCHOLARSHIPS AND FUNDING**

2023-2024 University of Illinois New Frontiers Fellowship

National Science Foundation Research Experience for Undergraduates (REU, CNS 13-05292) Summer 2019–Fall 2019

National Science Foundation Research Experience for Undergraduates (REU, CNS 13-05292) Fall 2018–Spring 2019

Kent State University Summer Undergraduate Research Experience Stipend 2017

**AWARDS**1<sup>st</sup> place at the 2023 University of Illinois Urbana-Champaign Coordinated Science Laboratory Student Conference in the “Machine Learning and Signal Processing” Category.

2022 National Science Foundation Graduate Research Fellowship Program (NSF GRFP) Honorable Mention

ICSME 2020 IEEE TCSE Distinguished Paper Award

1<sup>st</sup> place at the 2017 Kent State Undergraduate Research Symposium in the Computer Science / Math category**SERVICE****Session Chair**

2024 Coordinated Science Laboratory Student Conference, Machine Learning and Signal Processing Section

**Student Volunteering**

IEEE 35th International Conference on Software Maintenance &amp; Evolution 2019 (ICSME'19), Cleveland, Ohio

**Ad Hoc Reviewer**

ACM Symposium on Eye Tracking Research &amp; Applications (ETRA'19)

IEEE 34<sup>th</sup> International Conference on Software Maintenance & Evolution (ICSME'18)IEEE 33<sup>rd</sup> International Conference on Software Maintenance & Evolution (ICSME'17)**Reviewer**

2023 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)

2024 IEEE International Conference on Robotics and Automation (ICRA)

2024 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)

2024 European Conference on Computer Vision (ECCV)

IEEE Robotics and Automation Letters (RA-L)

2025 IEEE International Conference on Robotics and Automation (ICRA)

**SKILLS****Programming Languages**

C#, C++, Python, Javascript, HTML, CSS, SQL, x86

**Libraries / Systems**

ASP.NET, CUDA, STL, Win32, Flask, DynamoDB, MongoDB, Google Cloud Platform, VueJS, Bootstrap, Blazor, LLVM, OpenGL, Numpy, PyTorch, Open3D

**LANGUAGES**

English	Native
Russian	Native
Chinese	Beginner