Vlas Zyrianov

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EDUCATION

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

PUBLICATIONS

Conference Papers

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 36th 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 27th 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 6th 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 37th Annual Conference of the Society for Industrial & Organizational Psychology, Seattle, WA, April 27-30.

INDUSTRY EXPERIENCE

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.
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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

1st 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

1st place at the 2017 Kent State Undergraduate Research Symposium in the Computer Science / Math category

SERVICE

Student Volunteering

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

Ad Hoc Reviewer

ACM Symposium on Eye Tracking Research & Applications (ETRA'19)
IEEE 34th International Conference on Software Maintenance & Evolution (ICSME'18)
IEEE 33rd International Conference on Software Maintenance & Evolution (ICSME'17)

Reviewer

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

SKILLS

Programming Languages

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

Libraries / Systems

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

LANGUAGES

English	Native
Russian	Native
Chinese	Beginner