

Caius Brindescu

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Profile

I am a Software Engineer at Etleap. My work focuses on backend development, managing infrastructure, customer support and customer onboarding. I got my PhD at Oregon State University in 2020 where I worked on understanding how developers solve problems.

Education

- 2013 - 2020 **PhD in Computer Science at Oregon State University**
Thesis: *“An Investigation of the Effects of Merge Conflicts on Collaborative Software Development.”* I was advised by Dr. Carlos Jensen and Dr. Anita Sarma.
- 2012 - 2013 **PhD in Computer Science at University of Illinois at Urbana-Champaign**
Research Interests: Software evolution and software design. I worked with Dr. Danny Dig.
- 2007 - 2011 **Bachelor of Science in Computer Engineering at “Politehnica” University, Timișoara**
Subjects studied: Software Engineering, Object Oriented Programming, Operating Systems, Databases.

Work Experience

- 06/18 - 09/18 Software Engineer at **Etleap Inc.**
09/19 - present **Responsibilities:** Support customers during onboarding and trials, building and maintaining the core product and infrastructure
- 08/12 - 06/19 Graduate Assistant at **Oregon State University**
Responsibilities: Conducting graduate research, teaching assistant for multiple courses, and teaching
- 03/12 - 07/12 Research Engineer at **Politehnica University of Timișoara** and Software Engineer at **Movidius Inc**
Responsibilities: Joint project between the university and Movidius. My task was implementing an Eclipse based IDE to support multi-core debugging of embedded systems.
- Summer 2011 Internship at **University of Illinois at Urbana-Champaign** under the supervision of Danny Dig.
Responsibilities: Extending the existing *ReLooper* tool with a way to solve data-races via privatization. It is built as an Eclipse plugin and uses the WALA framework for static analysis.
- Summer 2009 & Summer 2010 Internship at **Politehnica University of Timișoara** under the supervision of Radu Marinescu
Responsibilities: Researching a method to use automated refactoring to solve bad smells in code. Determining the right refactoring strategy was done using metric-based algorithms. Looked for applications in the Refuse Parent Bequest design flaw. I also implemented a refactoring engine to be used to improve the design of software products.

Summer 2008 Internship at **Incremental SRL**
Responsibilities: Servicing computers

Teaching Experience

Winter 2019 Teaching assistant for Software Engineering II (CS 362) at Oregon State University
Responsibilities: Office Hours and grading.

Fall 2018 Instructor for Software Engineering I (CS 361) at Oregon State University
Responsibilities: Prepare lecture material and assignments, organize and coordinate student projects, office hours and mentoring.

Spring 2018 Teaching Assistant for Lab Studies in SE and HCI (CS 567) at Oregon State University
Instructor: Anita Sarma
Responsibilities: Office hours, grading and creating assignments. I am also supervising student teams for their class project.

Winter 2018 Teaching Assistant for Software Engineering II (CS 362) at Oregon State University
Instructor: Ali Aburasa
Responsibilities: Office hours and grading.

Fall 2017 Teaching Assistant for Software Engineering I (CS 361) at Oregon State University
Instructor: Anita Sarma
Responsibilities: Office hours, grading and preparing assignments.

Summer 2017 Instructor for Web Development (CS 290) at Oregon State University
Responsibilities: Preparing lecture material and designing the assignments, lecturing and office hours.

Spring 2017 Teaching Assistant for Empirical Software Engineering (CS 569) and Advanced Software Engineering (CS 562) at Oregon State University
Instructor: Anita Sarma and Danny Dig
Responsibilities: Office hours and grading

Winter 2017 Teaching Assistant for Mobile and Cloud Development (CS 498) and Empirical Software Engineering (CS 569) at Oregon State University
Instructor: Justin Wolford and Anita Sarma
Responsibilities: Office hours and grading

Fall 2016 Teaching Assistant for Software Engineering I (CS 361) at Oregon State University
Instructor: Alex Groce
Responsibilities: Office hours and grading

Spring, Summer 2016 Teaching Assistant for the online version of Senior Software Projects (CS 419) at Oregon State University
Instructor: Benjamin Brewster
Responsibilities: Monitoring the teams progress and grading

Winter 2016 Teaching Assistant for Operating Systems I (CS 344) at Oregon State University
Instructor: Benjamin Brewster
Responsibilities: Office hours and grading

Fall 2015 Teaching Assistant for Software Engineering I (CS 361) at Oregon State University
Instructor: Anita Sarma
Responsibilities: Office hours and grading

Summer 2015	Teaching Assistant for the online version of Software Engineering I (CS 361) at Oregon State University. Instructor: Iftekhar Ahmed Responsibilities: Grading
Spring 2015	Teaching Assistant for Software Engineering II (CS 362) at Oregon State University. Instructor: Alex Groce Responsibilities: Grading and holding office hours.
Winter 2015	Teaching Assistant for Software Engineering I (CS 361) at Oregon State University. Instructor: Danny Dig Responsibilities: Creating and grading homework. Mentoring teams of four students and helping them make constant progress throughout the term.
Fall 2014	Instructor for Seminar: Grad Intro (CS 507) at Oregon State University Supervising professor: Bella Bose Responsibilities: Holding a 50-minute lecture each week about topics relating to the graduate program (e.g. doing literature searches, preparing a presentation etc.)
Spring 2013	Teaching Assistant for Software Engineering II (CS 428) at University of Illinois at Urbana-Champaign. Instructor: Danny Dig Responsibilities: Creating and grading homeworks. Mentoring teams of eight students so they make constant progress on their class project.
Fall 2012	Teaching Assistant for Software Engineering I (CS 427) at University of Illinois at Urbana-Champaign. Instructor: Ralph Johnson Responsibilities: Creating and grading homeworks. Supervising student teams for the class project.

Publications

Journals

TOSEM '20	Using relative lines of code to guide automated test generation for Python Josie Holmes, Iftekhar Ahmed, Caius Brindescu, Rahul Gopinath, He Zhang, Alex Groce <i>ACM Transactions on Software Engineering and Methodology</i> , vol. 89, issue 4, pp. 1 – 39
ESEJ '19	An empirical investigation into merge conflicts and their effect on software quality Caius Brindescu, Iftekhar Ahmed, Carlos Jensen, Anita Sarma <i>Empirical Software Engineering Journal</i> , vol. 25, pp. 562 – 590
ESEJ '19	The Life-Cycle of Merge Conflicts: Processes, Barriers, and Strategies Nicholas Nelson, Caius Brindescu, Shane McKee, Anita Sarma, Danny Dig <i>Empirical Software Engineering Journal</i> , vol. 24, pp. 2863 – 2906

Conferences

- ICSME '20** **Lifting the Curtain on Merge Conflict Resolution: A Sensemaking Perspective**
Caius Brindescu, Yenifer Ramirez, Anita Sarma, Carlos Jensen
International Conference of Software Maintenance and Evolution, Adelaide, Australia, October 2020
- ICSE '20** **Planning for Untangling: Predicting the Difficulty of Merge Conflicts**
Caius Brindescu, Iftekhhar Ahmed, Rafael Leano, Anita Sarma
International Conference on Software Engineering, Seoul, South Korea, November 2020
Acceptance rate: 21% (129/617)
- ESEM '17** **An Empirical Examination of Code Smells and Their Impact on Collaborative Work**
Iftekhhar Ahmed, Caius Brindescu, Umme Ayda Mannan, Carlos Jensen, Anita Sarma
International Symposium on Empirical Software Engineering and Measurement, Toronto, Ontario, Canada, November 2017.
Acceptance rate: 26% (74/273)
- FSE '16** **Can Testedness be Effectively Measured?**
Iftekhhar Ahmed, Rahul Gopinath, Caius Brindescu, Alex Groce, Carlos Jensen
International Symposium on the Foundations of Software Engineering, Seattle, WA, USA, November 2016.
Acceptance rate: 26% (74/273)
- ICSE '14** **How Do Centralized and Distributed Version Control Systems Impact Software Changes?**
Caius Brindescu, Mihai Codoban, Sergii Shmarkatiuk, Danny Dig
International Conference on Software Engineering, Hyderabad, India, May 2014
Acceptance rate: 20% (99/499)

Blog Posts

- Nov 2022** **How Etleap and Amazon Redshift Serverless optimize costs for ETL**
Caius Brindescu, Maneesh Sharma, and Sathisan Vannadil
AWS Big Data Blog
- Nov 2021** **Integrate Etleap with Amazon Redshift Streaming Ingestion (preview) to make data available in seconds**
Caius Brindescu, Jobin George, Maneesh Sharma, and TJ Green
AWS Big Data Blog
- Dec 2020** **How Etleap Integrates with Amazon Redshift Data Sharing to Provide Isolation of ETL and BI Workloads**
Jobin George, Christian Romming, Neeraja Rentachintala, and Caius Brindescu
AWS Partner Network (APN) Blog

Service

I served as an external reviewer for the following conferences: ECOOP '15, ASE '14, ECOOP '13, ASE '17, ASE '17 Tool Demos, ICSE '19 and FSE '19. I was also a student volunteer for OOPSLA '14, FSE '16 and FSE '18.

I was on Program Committee for the Tool Track at SCAM '15, the Mining Challenge at MSR '17, the

Showpiece track at VL/HCC '17 and the Industry Track at ESEC/FSE 2021.

Invited talks

- 10/2014** *How do Centralized and Distributed Version Control Systems Impact Software Changes?*
Talk in CS 561 (Software Engineering) at Oregon State University. Host: Danny Dig
- 09/2012** *Code Smells*
Lecture in CS 427 (Software Engineering I) at University of Illinois at Urbana-Champaign.
Host: Ralph Johnson