Caius Brindescu, PhD

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About Me

I am a Principal Engineer with a passion for technology. I love working on new and existing code bases, and love the challenge of evolving software to better suit the users' and business' needs.

I have extensive experience using various technologies, and I am skilled at debugging and finding solution for the most challenging problems.

Outside of software engineering, I like to design and 3D-Print practical solutions to everyday problems, read, and experiment with different technologies.

Experience

Etleap

Principal Engineer (November 2024 – Present)
Member of Technical Staff (September 2019 – November 2024)

- Worked on developing and maintaining the back-end code and infrastructure. This included working with Hadoop, Spark, Flink, AWS, MySQL, PostgreSQL, Redshift, Snowflake, Databricks Delta Lake and dbt.
- Improved Terraform templates for private customer deployments by building a new Terraform module.
- Worked with customers during trials and on-boarding to ensure that the product met their technical needs. Provided support to existing customers.
- Helped evaluate new technologies, and develop proof-of-concept designs and implementation.
- Investigated, planned and managed effort to increased automated build reliability from 45% success rate to 90% success rate. This effort spanned 3 developments teams.
- Helped develop demos and scripts to be shown at trade shows (AWS reInvent, Snowflake Summit, Gartner D&A)
- · Published 4 blogs posts co-authored with AWS engineers.

Oregon State University

Graduate Assistant (August 2013 – June 2019)

During my time as a PhD student I worked as a Research and Teaching Assistant.

- Built tooling for program analysis, data collection and data analysis.
- Conducted qualitative and quantitative research and published 6 peer review conference papers and 2 journal papers.
- Taught Software Engineering, Software Testing, Web Development, Operating Systems and Empirical Software Engineering.
- I was the instructor of record for Software Engineering and Web Development.
- Helped redesign the Software Engineering class and the intro Web Development class.

Etleap

Software Engineering Intern (June - September 2018)

- Worked on developing and maintaining the back-end code.
- Developed 3 proof-of-concept integrations with external services.

University of Illinois at Urbana-Champaign

Graduate Teaching Assistant (August 2012 – August 2013)

Worked a teaching assistant for Software Engineering 1 and 2, under the guidance of Ralph Johnson.

Movidius (acquired by Intel)

Software Engineer (March – July 2012)

Short term contract to integrate existing compiler, debugger and virtual board simulator into Eclipse IDE. Coordinated a team of 4 developers in implementing this new project.

Education

PhD in Computer Science

Oregon State University, Corvallis OR, 2020

Thesis: "An Investigation of the Effects of Merge Conflicts on Collaborative Software Development." My research required using Static Program Analysis, applying Machine Learning techniques (classifiers), statistical analysis and observational studies. Took classes for Software Engineering, Software Testing, Human Computer Integration, Static Program Analysis, Empirical Method and Statistics.

BS in Computer Science

Universitatea Politehnica "Timișoara", Timișoara, Romania, 2011

Course work included Software Engineering, Computer Architecture, Distributed Systems and Compilers.

Skills

Programming Languages

I most familiar with **Java**, with over 15 years experience. I am comfortable using **C**, **C++**, **Python**, **Bash** and I have experience with **TypeScript**, **JavaScript**, **Go** and **Smalltalk**.

Frameworks and technologies

I have a good level of experience with the **Play Framework, Hadoop, Spark** and **Flink.** I have also worked extensively with **MySQL**, as well as **PostgreSQL**, **MS SQL**, **Redshift, Snowflake, dbt Core** and **Ansible**. I have dabbled with **Spring Boot** and **Kubernetes**.

Finally, I have extensive experience with **AWS** technologies, having had an AWS Big Data Certification. I am also very comfortable with using **Terraform** to manage infrastructure.

Technical Writing

I have good technical writing skills, having written documentation, peer reviewed articles as well as blog posts with external customers. I am comfortable writing for a wide range of audience, from novice to expert.

Project management

I have good experience managing projects. Some if it comes from my PhD when I have managed projects related to my thesis. I have also managed trials, on-boarding of new customers as well projects with external partners. I have also scoped out and led work on developing new features for the product.

References

Available upon request