Caius Brindescu, PhD

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About Me

Principal Engineer with 15+ years of experience in building distributed systems and data infrastructure. Expert in back-end development, cloud architecture, and developer productivity, with a track record of leading cross-team initiatives and delivering measurable reliability and performance improvements. Skilled at debugging and resolving complex technical challenges across diverse technologies. Outside of software engineering, I design and 3D-print practical solutions, read widely, and experiment with new technologies.

Experience

Etleap

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

- Led cross-team initiative spanning 3 development teams, **raising build reliability from 45%** → **90%**.
- Owned and operated AWS infrastructure serving dozens of customers; developed zero-downtime upgrade process improving security posture.
- Worked with Hadoop, Spark, Flink, AWS, MySQL, PostgreSQL, Redshift, Snowflake, Delta Lake and dbt.
- Designing and maintaining **Terraform** templates for private customer deployments.
- Published **4 blogs** posts co-authored with senior AWS engineers.
- Worked with new customers (start-ups and enterprise) during trials and on-boarding to ensure that the product met their technical needs.
- Migrated the build system to gradle from sbt to improve reliability. This involved adapting over 50 different modules to
 use gradle.
- Developed demos and demo scripts to be shown at trade shows (AWS reInvent, Snowflake Summit, Gartner D&A).

Oregon State University

Graduate Assistant (August 2013 – June 2019)

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

- Developed research tooling used by multiple projects and published in peer-reviewed venues (6 conference, 2 journal)
- Taught Software Engineering, Software Testing, Web Development, Operating Systems and Empirical Software Engineering, teaching classes of over 100 students.
- Instructor of Record for Software Engineering and Web Development classes (100+ students), redesigning course
 curriculum to improve student engagement and outcomes.

Etleap

Software Engineering Intern (June – September 2018)

- Worked on developing and maintaining the back-end code, including REST APIs, third party integrations or job orchestration.
- 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)

Coordinated a team of 4 developers to integrate an existing compiler, debugger and virtual board simulator into the Eclipse IDE.

Education

PhD in Computer Science

Oregon State University, Corvallis OR, 2020

Research in software engineering and developer productivity; published 8 peer-reviewed papers, 6 in conference proceedings and 2 in journals.

BS in Computer Science

Universitatea Politehnica "Timișoara", Timișoara, Romania, 2011

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

Skills

Programming Languages

- **Core:** Java (15+ years).
- **Proficient:** Scala, Python, Bash, R.
- Working knowledge: TypeScript, C, C++, JavaScript, Go, Smalltalk

Frameworks and technologies

- **Data & Streaming**: Hadoop, Spark, Flink
- Databases and SQL: MySQL, PostgreSQL, Redshift, Snowflake, Databricks DeltaLake, dbt
- Infra & DevOps: AWS (certified), Terraform, Ansible, Kubernetes, Bash
- Web/Apps: Play Framework, Spring Boot, Flask

Leadership and Communication

- Authored peer-reviewed papers, technical blogs (including 4 AWS-published Big Data blog posts), and internal
 documentation.
- Led cross-team initiatives (build system, database migrations, Terraform modules).
- Managed enterprise customer trials and on-boarding.
- Directed research projects and mentored graduate/undergraduate students.
- Scoped and delivered new product features from design to production.