



# Andrei-Ciprian Barbuta

## SOFTWARE ENGINEER

Bucharest, Romania

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## Summary

Driven and adaptable Computer Science graduate with hands-on experience in both frontend development and cloud support engineering. I have contributed to secure, real-world Angular applications and provided advanced technical support for Apigee X and Hybrid platforms at an enterprise level. Skilled in cloud-native technologies, API management, and modern development frameworks, I thrive in dynamic, fast-paced environments where learning and innovation go hand in hand.

## Education

### Babes-Bolyai Faculty of Mathematics and Computer Science

Cluj-Napoca, Romania

#### MASTER'S DEGREE IN SOFTWARE ENGINEERING

October 2023 - April 2024

- Relevant coursework: Agile Methodologies, Programming Paradigms

#### BACHELOR'S DEGREE IN COMPUTER SCIENCE

October 2020 - July 2023

- Relevant coursework: Data Structures and Algorithms, OOP, Networking, Web Development, Machine Learning
- Thesis: **Tuner and Tab Writer for Guitar Using Note Detection Algorithms**

## Work Experience

### Cognizant Softvision

Bucharest, Romania

#### CLOUD ENGINEER L1 - GCP

May 2024 - September 2025

- **Provided advanced technical support** on over **200 tickets for Apigee X and Apigee Hybrid platforms** across both **production and development environments**.
- **Monitored** cloud-native platforms using **Google Cloud Logging**, and metrics dashboards to track **API traffic, service health, and latency across** distributed environments.
- Handled role-based access and permission issues, **troubleshooting IAM, service accounts, and policy configurations** affecting API access and platform operations.
- Troubleshoot Apigee Hybrid installation and upgrade issues, **identifying problems across Kubernetes clusters, runtime components, and configuration dependencies** to restore platform functionality.
- **Diagnosed and resolved networking-related issues**, including **VPC connectivity, firewall rules, load balancer behavior, and hybrid communication paths** between on-prem and cloud environments.
- Collaborated closely with **engineering teams to reproduce, analyze and escalate bugs and service outages**, ensuring efficient resolution.
- Maintained and continuously improved the internal documentation, enabling **faster incident resolution** and strengthening team knowledge sharing. Created a **React-based** project tool for highly efficient documentation tracking.
- **Managed high-priority incidents** and ensured strict **adherence to SLA (Service Level Agreement) commitments** for enterprise-level clients.
- Technologies used: **Apigee X / Apigee Hybrid, Google Cloud Platform** — IAM, Cloud Logging, Cloud Monitoring, Kubernetes, **Google Cloud Networking** — VPCs, HTTP(S) Load Balancers, **Terraform Modules Apigee**.

### Accenture Industrial Software Solution SA

Cluj-Napoca, Romania

#### FRONTEND DEVELOPER INTERN

August 2022 - November 2022

- Participated in the design and development of a **secure, Angular-based frontend application** for **API key management**.
- Collaborated with cross-functional team members to translate technical requirements into **scalable, user-friendly UI components**.
- Implemented **best practices** in **TypeScript** and **Angular** to ensure **maintainable, modular, and high-performance code**.
- Actively contributed to **code reviews and iterative improvements**, enhancing **application stability** and **user experience**.
- Technologies used: **TypeScript, HTML5/CSS3, Angular, REST APIs, Docker**.

## Coding Projects

### Real-Time Multiplayer Chess Platform

- Built a **real-time, full-stack multiplayer chess platform** with an **authoritative server-side** game logic and **WebSocket synchronization**.
- Implemented full chess ruleset including **legal move generation**, turn validation, and **check/checkmate detection**.
- Modeled the game using a **centralized match state**, containing the chessboard, players, assigned colors and legal moves, **ensuring consistency across players** and **preventing client-side cheating**.

- Developed dynamic frontend logic for piece selection, **legal move highlighting**, board updates, and turn enforcement.
- Implemented **full move lifecycle**: move validation, board mutation, legal move recomputation, state broadcast.
- **Clean separation between game rules and UI** rendering for **maintainability** and **scalability**.
- Implemented **secure authentication** with **access tokens** and **HTTP-only cookie based refresh tokens**, including protected socket connections by using **authentication middleware**.
- **Key Challenges Solved:**
  - **Prevented client-side cheating** via **server-validated moves**
  - **Synchronized** shared **game state** across multiple clients
  - Managed **real-time updates** with strict **turn enforcement**
  - Maintained **persistent connections** using **JSON Web Tokens**
- Technologies used: **Express.js, React, Typescript, CSS3, HTML5, Socket.IO, JSON Web Token**

## Personal website portfolio

- Personal **portfolio website** showcasing projects, technical skills, and professional background, built with **React** and **modern frontend practices**.
- Focused on **responsive design**, **performance optimization**, and **clear presentation of content**.
- Implemented **CI/CD** with **GitHub Actions**, automating build and deployment to GitHub Pages, ensuring updates are live on every push.
- Technologies used: **React, Typescript, CSS3, HTML5, Github Actions**

## Modular Dashboard

- React application built for learning purposes that features a metronome, counter, timer and image generator. Emphasis on **reusable components and clean architecture**.
- Designed an intuitive UI for seamless user interaction and flexible functionality.
- Technologies used: **React, Typescript, CSS3, HTML5**

## Note-Wizard - Tuner and Tab Writer for Guitar Using Note Detection Algorithms

- Bachelor's Thesis JavaFX application which combines a **digital guitar tuner and real-time tab writer**, leveraging **FFT (Fast Fourier Transform)** and **signal processing** for **accurate note detection**.
- Created a user-friendly interface with JavaFX, **enabling musicians to tune and transcribe music seamlessly**.
- Technologies used: **JavaFX, TarsosDSP**

## Skills

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- **Backend and Scripting** - Node.js, Express, C++, Java, JavaFX, C#
- **Frontend Technologies** - JavaScript, TypeScript, React, Next.js, HTML5, CSS3, Angular
- **Databases** - SQLite, PostgreSQL
- **Cloud and API Platforms** - Google Cloud Platform, Apigee X and Hybrid
- **Tools** - Git, Linux, Docker, Github Actions, Gitlab, Terraform Modules
- **Problem Solving** and **Analytical Thinking**
- **Collaboration** and **Empathy**
- **Adaptability** and **Attention to Detail**

## Languages

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- **Romanian** - Native
- **English** - C1
- **German** - B1

## Extracurricular Activity

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### Hermes Society Students UBB

*Cluj-Napoca, Romania*

#### VOLUNTEER

*Oct 2020 - Oct 2021*

- Demonstrated **teamwork, leadership, and organizational skills** while coordinating tasks and assisting peers.

### Untold

*Cluj-Napoca, Romania*

#### VOLUNTEER

*August 2019*

- Assisted in **event coordination, crowd management, and on-site support**, ensuring a smooth and safe experience for attendees.