Zoltán Majoros

Software Engineer / Game Developer

Bonn, Germany

Portfolio: portfolio.arcanelab.com
GitHub: https://github.com/arcanelab
Twitter: https://twitter.com/arcanelab
Email: zoltan@arcanelab.com

GENERAL

Zoltán is an experienced software engineer with a diverse range of skills, primarily focusing on game development using Unity. He has worked on multiple released game titles, providing him with a strong understanding of the full application development cycle, from inception to release. Working in small teams and high responsibility roles, he has been in charge of handling a wide variety of tasks, giving him strong fundamentals in multiple areas of Unity development. His highly self-motivated nature and skillful communication allow him to work effectively in remote positions. With over 5 years of expertise in Unity development, Zoltán possesses hands-on experience in developing mobile applications as well.

EXPERIENCE

Self-employed, Bonn – *Software Engineer (2023 - present)*

Projects, roles:

- **Unannounced project**, *multi-platform simulation software (C++)*
    - Architecture design & implementation.
    - Image processing.
    - Embedded scripting languages.
    - Shader programming.

TeamViewer, Remote / Munich – *Software Engineer (2022 - 2023)*

Projects, roles:

- **Frontline Spatial Workplace**, *enterprise multiplatform augmented reality productivity application (**Unity** - Hololens, iOS, Android).*
    - Implementing new features (both user-facing and backend), fixing bugs.
    - Conducting 2nd round (technical) and 3rd-round (team fit) interviews.

- ○ Mentoring new hires and junior team members through weekly jour-fixes, pair programming sessions, and more.
- ○ Contributing to a comprehensive refactoring effort for the product application, starting with redesigning the application architecture to accommodate the latest customer requirements.
- ○ Leading an initiative to improve the team's pull request-related workflow, organizing guest talks from other teams within the company to gather and implement best practices.
- ○ Evaluating open-source libraries for internal use, implementing public patches and fixing bugs.

Self-employed, Bonn – *Software Engineer (2022 - 2022)*

Projects, roles:

- **Custom trading application**, *multiplatform financial trading application (**Unity**).*

  - ○ Design and implementation of application architecture.
  - ○ Multithreaded, real-time data exchange with broker API via WebSockets.
  - ○ UI + visualization of candles/tick data.

Brainseed Factory / Bigitec, Bonn – *Game Developer (2020 - 2022)*

Projects, roles:

- **Muslim 3D**, *a 3D educational video game (**Unity** - Windows)*
  - ○ Hired as the **lead developer** to oversee the software architecture design and development of the rebooted Muslim 3D project. Starting from scratch, I designed and implemented fundamental game systems, such as state management, dialogue, quests, input, UI, inventory, localization, and audio, among other features.
  - ○ Developed various editor tools to enhance development efficiency.
  - ○ Helped in hiring and building the development team.
- **The 7th Axe**, *a 2.5D action-platformer game prototype (**Unity** - Windows)*
  - ○ Worked on numerous game systems and tools to help the project progress through a time-constrained development process and reach a successful finish.

Senselab.io, Cologne / Remote *– Software Developer (2018 – 2019)*

Select projects, roles:

- **Training application for Hololens**, *a mixed reality application developed for TÜV Rheinland to aid lecturing and examination for operating specialized heavy-machinery equipment.* (**Unity**)
  - Researched and developed novel UI/UX paradigms and custom UI elements to maximize accessibility for users with no prior experience in Mixed Reality technologies.
  - Implemented marker-based positioning and location sharing.
  - Responsible for architecting and implementing the application from early conception to final release, incorporating client feedback.
- **eMobility Hololens application**, *a mixed reality experience for an industry client to showcase their product portfolio at trade fairs for potential customers. (Unity)*
  - Created a multi-user, peer-to-peer experience using multiple Hololenses (guide/attendees).
  - Developed UI logic, animations, and UX.
- **VR Commercial Experience for AXA**, *a mobile VR application for the Oculus GO (Unity)*
  - Responsibilities: UI programming, animations via Timeline, shader effects, NavMesh-based NPC behavior.

Brainseed Factory, Bonn *– Game Developer (2017 – 2018)*

Projects, roles:

- **Squishies**, *a VR puzzle platformer for PC and PlayStation VR* (**Unity**)

  - Responsible for a wide range of tasks from conception to implementation, including but not limited to: gameplay logic, NPC behavior, shaders, visual effects, performance optimizations, UI, and level design.
  - Worked in a small agile team, utilizing SCRUM, conducting daily standups, operating in two-week sprints.
  - Gained experience in relative estimations of user stories and managed feature/bug balancing during sprints. Project successfully met all deadlines and milestones.

Freelance, Bonn *– iOS Application Developer (2009-2017)*

- Last project: **Custom augmented reality application for iOS** *(Native)*

  - Developed a native Augmented Reality application to scan 3D indoor spaces using a dedicated 3D scanner, analyzing scene features to assist work at construction sites.
  - Utilized the **structure.io SDK** on top of SceneKit to implement environment scanning, movement tracking, and scene recognition features.
  - Written in **Swift & Objective C**.

SKILLS

- **General**
  - Efficient and productive when working as part of a remote team.
  - Experienced in conducting code reviews, well-versed in pull-request-based workflows.
  - Self-motivated, independent problem solver.
  - Very strong interpersonal and communication skills.

- **Unity Development**
  - Adept at writing high-performance C# scripts.
  - Experienced in developing for mobile, traditional desktop 3D, mixed-reality, and virtual reality platforms, targeting Hololens, Oculus/Meta, and PlayStation VR headsets.
  - Experienced in architecting large-scale applications with a focus on modularity, performance, and maintainability using data-oriented design.
  - Skilled in creating editor tools to improve development efficiency for the entire team.
  - Well-versed in performance-profiling, optimizing, dealing with CPU- and GPU-bound bottlenecks.
  - Skilled in creating user interfaces, integrating UI assets created by artists.

- **General software engineering skills**
  - Very strong focus on writing clean, stable and maintainable code.
  - Knowledgeable about a wide array of design patterns.
  - Solid understanding of low-level computer architecture.
  - Extensive knowledge of performance-related best practices.

- **Other technical skills**
  - C, C++
  - Swift, Objective-C
  - Git, Plastic SCM

EDUCATION

Vienna University of Technology, Austria *- Software Engineering (2008-2009)*

Software & Information Engineering via the CEEPUS scholarship program for two semesters as an exchange student.

University of Miskolc, Hungary *- Information Engineering (2002-2008)*

Information Engineering MSc. After the third year, I specialized in Application Development. Our studies focused on natural sciences, engineering, and both general and applied informatics.

LANGUAGES

- English: fluent
- German: conversational
- Hungarian: native

OTHER SKILLS

- Easygoing team player with strong social and communication skills.
- Able to learn new technologies quickly.
- Independent problem-solving abilities.
- Capable of conducting technical interviews and assessing candidate skills for hiring decisions.
- Curious about new and emergent technologies.
- Committed to ongoing professional and personal self-development.

HOBBIES

- Playing guitar.
- Music composition and production.
- Reading.
- Demoscene.
- Skateboarding.
- Sports (table tennis, frisbee, cycling).