

# Andre Duvoisin

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## EDUCATION

**B.S. Computer Science (Games)**, University of Southern California

GPA: 3.85

## EXPERIENCE

**Blizzard Entertainment** (C++, Java, Swift, Python), *Software Engineer* 2016 – Present

- Created, architected, and shipped a GraphQL edge service in Java that orchestrates data from multiple REST APIs. Contributions include core functionality, OAuth2 authentication, Jenkins build and AWS deployment pipelines, in-memory caching layers, monitoring, and analytics
- Architected and shipped a publishing pipeline from the Heroes of the Storm and Hearthstone game servers in C++ to publish player profiles, turn-by-turn game statistics, and end-of-game statistics to an external API using REST, HTTP, RabbitMQ, and Protobuf
- Shipped the Battle.net Messenger iOS app with contributions including core UI functionality, XMPP server integration, network connection management, and localization pipeline
- Ported a C++ SDK to iOS with a Swift interop layer to prototype mobile social feature viability
- Added features to the World of Warcraft and Authenticator iOS apps in Objective-C and Swift
- Shipped two Python web applications to aggregate and transform JSON data for a REST API

**Blizzard Entertainment** (C++, Qt, IPC), *Software Engineer Intern* 2015

- Created a desktop app demonstrating voice chat feature implementation for SDK consumers
- Built out voice chat features in the Battle.net app from the UI to the low-level social engine

**Blizzard Entertainment** (C++, Qt, Linux, Python, HTTP), *Software Engineer Intern* 2014

- Iterated upon a data visualization tool analyzing network traffic for the Battle.net downloader

## PROJECTS

**Composite Engine** (C++, OpenGL, JavaScript) [git.io/CompositeEngine](https://git.io/CompositeEngine) 2017 – Present

- Creating a game engine in C++ with OpenGL on Windows and Mac with a CMake build system
- Implementing a graphics engine including rendering, texturing, skinning, and animations
- Creating an animation processing tool to import via FBX SDK and export to a custom format
- Integrating Chromium Embedded Framework (CEF) and creating a user interface in JavaScript
- Implementing an event system to marshal events between encapsulated engine systems

**Piston Shooty** (Rust) [git.io/piston\\_shooty](https://git.io/piston_shooty) 2017 – Present

- Creating a 2D puzzle game including main menu, gameplay, level editor, audio, and UI

**Chambara** (C# with Unity3D, Node.js) [chambaragame.com](http://chambaragame.com) 2015 – 2016

- Ported to PS4 and Xbox One including controls, achievements, localization, and accessibility
- Created a build and deploy system with Jenkins to manage a cross-platform game
- Architected a platform for player profiles, matchmaking, and game server management

**Polyseum** (C++ with Unreal Engine 4) [polyseum.com](http://polyseum.com) 2014 – 2015

- Implemented core networked multiplayer gameplay features for a first-person shooter including chat, status effects, game flow, spectator mode, reconnecting, and dashing

**The Maestros** (UDK, HTTP, TCP, Flash) [maestrosgame.com](http://maestrosgame.com) 2013 – 2016

- Integrated against a platform API to form a robust lobby and character select system
- Created UI for the main menu and in-game HUD overlays using Scaleform GfX

## SKILLS

**Game Engines:** Unreal Engine 4 (UE4), Unity3D, Unreal Development Kit (UDK)  
**Languages:** C++, Java, JavaScript, Node.js, Swift, Python, C#, C, OpenGL, Rust, SQL  
**Technologies:** iOS, Mobile, GraphQL, OAuth2, Jenkins, Qt, Linux, HTTP, TCP, UDP, SIMD