Nicholas Chalkley

Technical Artist · Software Engineer
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Summary

3d artist and game designer/programmer. 5+ years of C++ experience, 7+ years of game design experience with Unreal Engine (3 and 4). Currently working as a technical artist at Beam Imagination.

Work Experience

Beam Imagination
Atlanta, GA

Technical Artist
January 2018 - Present

- Created AR/VR apps for the Atlanta Braves with Beam using photogrammetry.
- Coordinated and directed photogrammetry of individual Braves players.
- Designed/modeled a realtime 3d demonstration of a prototype Delta Air Lines in-flight beverage cart.

Student Innovation Fellowship (SIF)
Georgia State University

Environment Artist
Summer 2016 - January 2018

- Modeled buildings for the SIF 3d Atlanta Project. The project is a historical recreation of Atlanta in the early 20th century.
- Conducted photogrammetry for the SIF Oakland Cemetery 3d archival project and the Kell Hall archival project.
- Consultant for Georgia State University course designers on integrating 3d modeling classes into SIF projects.

EXLAB/Makerspace
Georgia State University

Makerspace Assistant
Winter 2015 - Summer 2016

- Wrote documentation/tutorials on how to use the EXLAB equipment.
- Backend/frontend website development for the EXLAB wiki.
- Built the EXLAB gaming computers.
- Designed 3d printed models.
- Developed showcase projects for emergent technologies such as the Oculus Rift and the Microsoft Hololens.

Pastaspace Interactive
California, USA

Environment Artist
Summer 2012 - Winter 2014

- Created environment art and hard surface models.
- Collaborated with concept artists to translate 2d art into 3d models.

Passion Projects

GPU-Accelerated Landscape Generator

https://github.com/nchalkley2/LandscapeGenerator
December 2017 - Present

- Inspired by Bob Ross, Dwarf Fortresses' world generation, and the CPU-only landscape generation program World Machine.
- Uses Unreal Engine 4's blueprint system for non-destructive node based generation.
- Uses GPU compute to highly parallelize generation and reduce computation time by orders of magnitude compared to CPU-only generation. Generation that would take over an hour on the CPU only takes a few minutes on the GPU.

Unreal Engine 4 Space Station Simulation Game

https://github.com/nchalkley2/UE4-SS13 *Spring 2014 - Winter 2015*

- Created a multiplayer space station simulation game based on the game Space Station 13.
- Used the game engine Unreal Engine 4.
- Integrated the OpenCL and OTL libraries with Unreal Engine for the project. Used OpenCL for the atmospheric simulation and MySQL with the OTL library for storing player data and committing database transactions.
- Used Marvelous Designer for the player clothes.
- The project was overly ambitious and while it was ultimately unsuccesful, working on the project non-stop after graduating from high school in the Summer of 2015 was one of the most insightful software engineering experiences I've had.

School Experience

Snapchat Clone Group Project

Georgia State University
Software Engineering Class

Software Engineer *Fall 2017*

- Used Unity + Vuforia for visualizing models in augmented reality on a mobile phone.

Education

Georgia State University

Atlanta, Georgia

Majoring in Computer Science *Winter 2015 - Present*

- Was awarded the merit-based HOPE scholarship for Spring, Summer, and Fall semesters of 2017.
- Currently holding a cumulative 3.5 GPA.

Chattahoochee High School

Atlanta, Georgia

High School Diploma *2011 - Summer 2015*

Extracurricular Activity

Pantherhackers

Georgia State University

Member/Data Scientist *Spring 2017 - Winter 2017*

- Used Python/C++ to collate data and visualize member demographics, event attendance, and Slack usage patterns.

Chattahoochee High School Tech Club

Chattahoochee High School

President *Spring 2012 - Summer 2015*

- Lead a 25 member student organization in creating technology related projects.