Nicholas Chalkley

3D ARTIST · SOFTWARE ENGINEER · TECHNICAL ARTIST

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Summary

3d artist and game designer/programmer. 4+ years of C++ experience, 6+ years of game design experience with Unreal Engine (3 and 4). Currently working as a student assistant at the Georgia State University Student Innovation Fellowship.

Work Experience

Student Innovation Fellowship (SIF)   *Georgia State University*
ENVIRONMENT ARTIST   *Summer 2016 - Present*
- Modeled buildings for the SIF 3d Atlanta Project, which 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.
- Worked as a consultant with 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 using the EXLAB equipment.
- Backend/frontend website development for the EXLAB wiki.
- Built the EXLAB gaming computers.
- Designed 3d printed models.
- Made showcase projects for emergent technologies such as the Oculus Rift and the Microsoft Hololens.

Pastaspace Interactive   *California, USA*
ENVIRONMENT ARTIST   *Summer 2013 - Winter 2014*
- Created environment art and did hard surface modeling.
- Worked with a team of concept artists to translate 2d concept 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 off of 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 failed spectacularly, but working on the project non-stop after I graduated from high school in the Summer of 2015 was one of the best software engineering experiences i've had and learned from.

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