

Chicago | Boston+1 781 354 4414pieter2@illinois.edu



### INTRODUCTION

I am a student in both **Computer Engineering** and **Structural Engineering** at the University of Illinois. With both of these tracks, I am building strong foundations in **engineering principles** and **interdisciplinary leadership**. Professionally, I am in pursuit of **software engineering and product design internships** so I can expand my knowledge and skills in the industry. My current skills combined with my ability to **learn quickly** make me a **competitive** fit for any entry-level position.

#### **LANGUAGES**

Python, Java, C/C++, HTML/CSS, Javascript, SQL, MAT-LAB

### TOOLS

Git, Azure, Postgres + MySQL/MariaDB + SQL Server, MongoDB, Django+Celery, Agile/Scrum, REST APIs, Docker

# **ENVIRONMENTS**

JetBrains, Visual Studio

### **PLATFORMS**

Windows, Linux, Android, Web

#### **EDUCATION**

3.92 4.00 Grad.

Dec 2021

University of Illinois at Urbana-Champaign
B.S. Computer Engineering and B.S. (Structural) Civil Engineering dual degree

Awards: Eng. James Scholar / Dean's List (x6) / Wayne C. Teng Scholarship / Delores Wade Huber Scholarship / Illinois Eng. Achievement Scholarship / J. C. & M. J. Geagea CEE Scholarship Relevant Coursework: Algorithms and Models of Computation / Numerical Methods I / Data Structures / Computer Systems Engineering / Database Systems / User Interface Design

# **PROJECTS**

Jan 2021 -> Present

#### Research - What-if Hypothetical Implementations in Minecraft

whimcproject.web.illinois.edu

- WHIMC: A National Science Foundation-funded research project dedicated to impactful learning
- Designed an efficient multi-stage A\* search algorithm to perform optimized path-finding throughout Minecraft worlds to facilitate STEM instruction and provide impactful data

Java / Game Design / Algorithms / Research

Aug 2019 -> Present

### Game Development - Minecraft - "Nope"

gitlab.com/minecraftonline/nope

- Built Minecraft administrative protection plugin, currently driving moderation of over 500 players a day on the oldest existing multiplayer Minecraft server (minecraftonline.com)
- ullet Authored a modified K-D tree, improving crucial algorithm performance from O(n) to O(log(n))

Java / Game Design / Algorithms / SQL+MariaDB / API / Git

Jan 2019 -> Aug 2019

#### "Visuol"

github.com/pietelite/visuol

- Built primitive 3D object virtualization tool on Android for an enhanced multivariate calculus experience
- Employed the Google Daydream API and OpenGL ES framework

Java / Android / OpenGL ES / Google VR/AR

### **EXPERIENCE**

Jan 2018 -> Present part time

### Center for Academic Resources in Engineering Tutor + TAM 212 Dynamics TA\*\*

U of Illinois

- Taught weekly classroom-style review session for multivariate calculus for ~50 students over 2 years
- Led the CARE Tutoring team for ~1.5 years, hiring and managing the ~40 tutors across the eng. dep.
- Tutored multiple CS, ECE, math, and physics courses at least 4 hours/week for the last 7 semesters

June 2019 -> Aug 2019 full time

## Python+Java Instructor / Developer\*\*

Einsteins Workshop Inc.

- Taught ~100 grade-schoolers object-oriented programming principles
- $\bullet\,$  Developed Java Minecraft plugin to manage virtual summer camp STEM classes for  $\sim\!\!300$  students

Java / Python

June 2018 -> Aug 2018

#### Architecture Intern\*\*

#### Prellwitz Chilinski Associates

- Designed and modeled single-story ~2,500 sq. ft. Hayward's ice cream parlor in Revit 2019, built in Merrimack, New Hampshire and which currently serving between 300-500 people a day
- Learned and applied new architectural skills on the job under guidance of certified architects

Internship / Revit / Sketchup

# EXTRA-CURRICULAR

"I'm an Engineering Student Alumni Ambassador, engaging in the diverse network of Illinois Alumni

**For fun**, I perform with my all-male singing *a cappella* group, the **Xtension Chords**! Come say hello at **www.xtensionchords.com** or listen to us on Spotify

<sup>\*\*</sup> References provided upon request