EMILY NGUYEN

nemily.github.io
@berkeley.edu | (***) ***-*

EDUCATION

University of California, Berkeley **Bachelor's in Computer Science** **Graduated Jul. 2020**
Data Structures | Computer Algorithms | Databases | Computer Architecture | Computer Security | Networking and Internet Architecture | Computer Graphics | Linear Algebra | Artificial Intelligence | Virtual Reality | Game Design and Development | User Interface Design and Development

SKILLS

Python | Java | C# | C++ | Golang | C | SQL | Scratch | Snap! | Unity | LaTeX | HTML | CSS

EXPERIENCE

Software Development Intern | Lokafy, Toronto, Canada **Jun. – Aug. 2018**
- Using the Stripe API, developed a QuickPay payment system that allowed employees to create and send transaction links on-the-fly to customers by embedding encrypted payment details in a short URL. This scaled up the number of payments and increased ease of use for employees on-the-go.
- Designed front-end customer payment system and employee portal based off of company's style guide, using the Django framework, CSS, and HTML.
- Developed back-end system with SQL and Python to connect with Stripe API and record and display transaction details in an employee portal.

Code Coach | The Coder School, Berkeley, U.S. **Jul. 2019 - Present**
- Teaching Scratch, Python, Java, and C# to students ages 7-16 and applying their knowledge towards problem solving, algorithm design, and app-building.
- Taught Scratch and Python in 9 camps to groups of 12-14 students, and guided each student to complete polished deliverables - such as Flappy Bird, text-adventure games, and Galaga - by the end of 1 week.
- Mentored students in personal projects such as infinite-level platformers, 3D platformers, VR Cooking Sim, animal simulations, and more!

Virtual Reality Course Facilitator | University of California, Berkeley **Jan. – May 2020**
- Taught in a class for Berkeley undergraduate and graduate students about development for VR in Unity using C#, as part of a team of student facilitators. Supported students during labs with problem-solving and debugging code.

Academic Intern | University of California, Berkeley **Jan. – May 2019**
- Tutored students in Python and introductory computer science concepts for 5 hrs / wk.
- Tested student knowledge in lab and covered programming projects and coding concepts in office hours.

PROJECTS

Crowd Simulation | Unity3D, C# **2020**
- Developed a simulation of a crowd on a busy intersection, using the NavMesh system and NavMesh AI.
- Spawned AIs at entrances and pathed them towards their destination while respecting pedestrian rules, such as walking on sidewalks and following crosswalk stoplights.

VR Game: Escape Room | Unity3D, C#, Oculus Virtual Reality **2020**
- Developed an interactable escape room, complete with multiple minigames, using OVR Input, collisions and triggers, an event system, and coroutines.

Localized End-to-End Encrypted File Sharing System | Golang **2019**
- Designed and implemented a localized file sharing and editing system that protects user privacy.
- Features a stateless client, symmetric and asymmetric encryption, HMACs, and digital signatures.

ArkAngel | Unity, C# **2018**
- Developed a 2D top-down adventure-fantasy role playing computer video game.
- Implemented UI, dialogue branching, player movement, control system, and minigames.

Killer Boba | Unity, C#, iOS **2018**
- Developed an iOS mobile game about a boba character attempting to escape a straw in a 48hr Hackathon.
- Implemented player touch screen control, collision physics, and enemy boba/cup/straw mechanics.

Mini-Git | Java **2017**
- Created a local version-control "git", including development of commits, branches, checking out, and branch merging.

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