RONNIN PADILLA

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WORK EXPERIENCE

Omphalos Lifesciences Inc.   **Dec 2021 - Present**
Software Engineer   *Dallas, Texas*

- Led development in using a C++ game engine (Unreal Engine 5) to create an IDE for a novel biological programming language - from UI to distribution.
- Designed and implemented various Slate widgets for code editing and scientific analysis, e.g. genome viewer, biological diagrams.
- Engineered a server-client model for remote control over a UE5 instance, leveraging Python and gRPC communication.
- Developed an automated CLI tool to combine the building and testing of the UE5 project and external C++ projects for cross-platform (Windows & Mac) continuous deployment.
- Secured a $75,000 Epic MegaGrant for the project showcasing my visualizations and VFX of biological processes.

UT Southwestern Medical Center   **Jan 2021 - Nov 2021**
Graphics Programming Intern   *Dallas, Texas*

- Utilized Unreal Engine 4 to develop realistic GPU-accelerated visualizations of proteins and molecular processes.
- Worked under Dr. Daehwan Kim.

PROJECTS

Kabi - *Gamified spaced-repetition flashcards*   🛠 Typescript, React Native, Python
https://kabi.fun/

- A cross-platform React Native app for creating and reviewing flashcards for any subject - combined with Unity for a gamified experience.
- Utilized FastAPI for HTTP endpoints, SQLAlchemy for SQLite queries, and deployed the backend to Google Compute Engine.

EDUCATION

University of Illinois at Chicago   **Fall 2019 - Spring 2022**
Bachelor of Science in Computer Science   *Chicago, Illinois*

- 3.90/4.00 GPA
- Member of Tau Beta Pi

RESEARCH

A switch-like checkpoint gates progression of clathrin-mdiated endocytosis *(Under review)*
X. Wang, Y. Li, A. Liu, **R. Padilla**, D. Lee, D. Kim, M. Mettlen, Z. Chen, S. Schmid, G. Danuser
bioRxiv

INTERESTS

Playing with my dog, beatboxing, volleyball, traveling, and Dance Dance Revolution