DANIEL JAYMIN PARK

dannyjp@umich.edu • (703) 627-8684 • 2316 Yvonnes Way, Dunn Loring VA
github.com/dannyjp98   linkedin.com/in/danielpark01/

EDUCATION

University of Michigan, College of Engineering   **Ann Arbor, MI**
B.S. in Computer Science Engineering; GPA: 3.95 / 4.00   *Aug 2021 - Dec 2024*
Relevant Coursework: Programming & Data Structures, Algorithms, Operating Systems, Computer Architecture, Machine Learning, Computer Vision, GPU, Game Development, AR/VR Development, Networking, Web Systems, Database

SKILLS

C/C++, Python, CUDA, Javascript, Qt, GLSL, VueJS, React, Flask, REST APIs, SQL, Unreal Engine, Unity, Git, Figma

EXPERIENCE

Tesla   **Palo Alto, CA**
Vehicle Software Intern - Maps & Navigation   *May 2024 - Aug 2024*
- **Search This Area:** Built fullstack feature to allow users to refresh a navigation search query when dragging or zooming to a new area. Built backend with new Google API in C++ and designed front-end based on Figma designs. Feature was highlighted in release notes for all production vehicles (SX, 3Y, Cybertruck).
- **Migrated Search API:** Migrated all in-car Google searches to use new API with improved search quality
- **Notification Refactor**: Refactored 18 navigation notifications (2400+ lines of code) to follow MVC so they can be instanced multiple times with shared business logic. Reduced code duplication and standardized code for better maintainability.
- **Suggestion Threads:** Added multithreading for executing auto-navigation suggestion SQL queries off the main thread
- **Unreleased feature:** Wrote a custom GLSL fragment shader as part of a prototype feature.
- **Unreleased feature:** Built a search feature using a new third-party API. Held regular meetings with third-party engineers to discuss feature requirements and resolve API issues.

Raytheon   **Arlington, VA**
Software Engineer Intern   *May 2023 - Aug 2023*
- Refactored procurement web application in C# from ASP.NET (2012) to .NET Core 7 (2023) and upgraded UI to Bootstrap 5
- Wrote REST APIs for admin functions and created dashboard for displaying various data analytics
- Implemented caching on list items to speed up page load times of 35,500 procurement entries by 400%
- Standardized app to scale with multiple contracts expanding from 1 contract to 5

PROJECTS

Ronin Trail | C++, Unreal Engine 4
- Solo developer of Ronin Trail, a video game in Unreal Engine 4 with 70,000+ wishlists on Steam; Responsible for gameplay programming, AI & behavior trees, map design, technical art, animation, 3D modeling, SFX…etc
- Recipient of the Epic Games' **Epic MegaGrant** and featured on Unreal Engine's blog
- Ran a Kickstarter campaign during Summer 2022 which raised $45,000 from 1627 backers

Virtual Reality National Parks | C++, Unreal Engine 5
- Developed VR simulation of various national parks to educate users on park safety and wildlife for Meta Quest Pro

Optimized GPU Kernel | CUDA
- Wrote an optimized GPU kernel in CUDA to perform 3D convolution; Utilized tiling to reduce global memory reads;

Scene Recognizer | Python, PyTorch
- Built CNN model in PyTorch to recognize scenes from images. Based model on VGG architecture and utilized batch normalization to improve performance;

Dog Breed Neural Network Classifier | Python
- Built a CNN in to identify the breed of a given dog image; Fine tuned model architecture and hyperparameters to achieve an accuracy of 90%;

Multithreaded Network File Server | C++
- Built a thread-safe file server which supports any number of concurrent client requests sent over a network (read, write, create, and delete); Utilizes reader-writer locks to optimally perform operations in parallel while ensuring crash consistency; Communicates with clients through TCP sockets;

Instagram Clone | Javascript, Python, SQL, React
- Built social media app using React.js frontend, Python backend, and SQL database deployed on AWS EC2 instance

ACTIVITIES

Tau Beta Pi Engineering Honor Society   *Dec 2022-Present*