Sameer Komoravolu

630-823-1516 | skomo2@illinois.edu | linkedin.com/in/sameer-komoravolu-80a7ba229 | github.com/samkomoravolu
samkomoravolu.github.io/MySite

Education

University of Illinois Urbana-Champaign — Champaign, IL
BS in Computer Science, Grainger College of Engineering (GPA: 3.91) — *Aug 2022 - May 2025*

- **Computer Science Coursework:** Data Structures, Algorithms, Computer Engineering, Operating Systems, Compilers, Probability & Statistics, Machine Learning & RL, Databases, IoT, Networking
- **Math Coursework:** Number Theory, Linear and Abstract Algebra, Complex Analysis, Tensor Analysis

Experience

Software Engineer Intern — May 2023 – Aug 2023
Chamberlain Group Inc. — *Oak Brook, IL*

- Migrated production-ready code for 2 projects into the .NET 6.0 ecosystem to ensure C# codebase stays current.
- Built Python script to efficiently query over 70,000 user entries and generate combined dataset in 8 seconds.
- Practiced dependency injection and built resilient integration tests with QA team to bolster performance by 65%.
- Worked with Azure DataFactory and CosmosDB to filter and migrate 20,000 user entries.

Student Research — Aug 2020 – Jun 2022
Fermi National Accelerator Laboratory — *Batavia, IL*

- Filtered through signal and background events with a 98.2% efficiency with a DNN using TMVA framework.
- Built and optimized performance of 4 C++ CMS software packages to store data in file systems in a WSL domain.
- Processed over 26,000 PYTHIA-generated particle interactions by working with group's data-handling software.
- Reported results of 2 experiments in arXiv publications and presented for 30 minutes at IMSAloquium.

Software Engineer Intern — Jun 2020 – Aug 2020
Kridagild Inc. — *Aurora, IL*

- Designed company website interface to allow room for collaboration, following Object-Oriented paradigm.
- Developed Python software to run company system, reducing latency by 60% across distributed systems.
- Managed a detail-oriented user database run on a Google Cloud Computing server to enable far-reaching access.

Projects

Fully Self-Driving PiCar | *Python, OpenCV, TensorFlow, KiCad, IoT, Raspberry Pi, Git*

- Built self-driving car using IoT and system design principles with ability to navigate complex ecosystems
- Optimized OpenCV code to classify street signs with 91% accuracy and 2 fps throughput, enabling quick responses
- Implemented SLAM mapping with Ultrasonic and A* search to navigate dynamic layouts with latency under 0.8s
- Utilized Git and SSH/SFTP protocols to develop code and communicate effectively across team of 4

AI Software Development Tool | *ASP.NET, C#, Kaggle, Keras, Python, React, TensorFlow*

- Headed team of 4 to create site that allows users to change training parameters and generate TensorFlow code.
- Site used Bootstrap form that gathers training and layer specifications to build an ANN or CNN.
- Used site to train a CNN on 27,000 images and classified key facial features with 89% accuracy.
- Used site to train an ANN on a data set of banknotes to cluster finance characteristics with 97% accuracy.

Fullstack Course Selector | *Bootstrap, CSS, HTML, Node.js, Python, TensorFlow*

- Worked as a full-stack developer with a team of 6 to create a web application containing information on courses.
- Enabled student access to over 160 course syllabi by implementing a course search feature.
- Provided course recommendations using 600 students' experiences by implementing a Random Forest regressor.

Technical Skills

Programming Languages: Python, Java, Objective-C, C++, Assembly, Verilog, C#, SQL, HTML/CSS, JavaScript
Frameworks: React, Node.js, ASP.NET, Azure, AWS, GCP, Bootstrap, CI/CD, Scrum/Agile, WinForm, MySQL
Developer Tools: Git, Docker, Visual Studio, CosmosDB, Linux, Jira, Kubernetes, DevOps, xUnit, VMWare
Libraries: Flask, NumPy, Pandas, Matplotlib, TensorFlow