ALI GUZELYEL

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EDUCATION

Illinois Institute of Technology, Chicago, IL
M.S. in Artificial Intelligence – GPA: 3.8/4.0   *Jan 2022 – Dec 2023*
B.S. in Computer Science – GPA: 3.87/4.0   *Aug 2019 – Dec 2023*
Relevant Courses: Algorithms, Big Data Tech, Cloud Computing, Data Mining, Machine Learning, CV, NLP, OOP, Software Dev
Clubs, Hackathons: ACM@IIT, ML@IIT, MLH, INIT, DemonHacks, UncommonHacks

TECHNICAL SKILLS

Languages:	Python, Java, C#, React.js, C, Shell, R, PostgreSQL
Libraries:	TensorFlow, PyTorch, OpenCV, Scikit-learn, NumPy, Pandas
Frameworks:	REST, NoSQL, .NET, AWS EC2, Kinesis, S3, Hadoop, Spark
Tools:	MongoDB, Linux, KVM, Vim, Git, Docker, VR Headset

WORK EXPERIENCE

CS Teaching Assistant, Illinois Institute of Technology   *Aug – Dec 2023, Aug – Dec 2021*
- Assisted projects on web development and OpenAI API utilization along with mentors from partnering P33 Chicago companies.

Robotics Software Engineer Intern (Student Consultant), Open Avenues Career Pathways   *June 2023 – Aug 2023*
- Generated trajectories for a robot manipulator through inverse kinematics and optimization algorithms in non-convex problems.
- Utilized simulators, controllers, and optimizers from the open-source Drake API to control and move the robot in simulations.
- Developed testing procedures with multiprocessing, worked with Python and NumPy on Docker.

Software Engineer Intern, Strata Decision Technology   *June 2022 – Aug 2022*
- Restructured a legacy Idea Center web application into a Microservice and deployed on AWS through Agile methodologies.
- Developed compact production code with C# and React.js on .Net Core Framework and implemented multiple new features.
- Debugged, made REST API calls, re-designed the database with PostgreSQL, and migrated 10K+ B2B user data points.

Machine Learning Intern, Sonsuz Design   *June 2021 – Aug 2021*
- Engineered an attendance tracking app with face recognition using Python, OpenCV and Pandas libraries.
- Established a data-program-data pipeline to develop the pretrained face recognition model into an application.

Software Engineer Intern, Ozyegin University   *June 2019*
- Developed a Virtual Reality game for the architecture department by leading a team of 5 high school interns.
- Demonstrated the advantage of interactivity in AR-VR technologies for the design industry using Unity, C#, and VR headsets.

PERSONAL PROJECTS

Simple-GPT (Generative AI)   *Mar 2024 – Mar 2024*
- Developed a tiny LLM model on T4 GPU with PyTorch to generate new Shakespeare works using a decoder-only Transformer.

Disk & Data-Platform Benchmarking   *Sep 2023 – Dec 2023*
- Developed a custom benchmarking tool on multiple Ubuntu-Linux based VMs using C, Shell, C++, and Python to test throughput and latency performance for common I/O operations on cloud servers, local disk, Cassandra, and MongoDB clusters.

AWS Streaming Data to ML Model Pipeline (Cloud AI)   *Nov 2023 - Dec 2023*
- Implemented an automated ML pipeline based on AWS CLI, Kinesis, and Firehose to collect, compile, and pre-process streaming data, and direct prepared data from S3 to SageMaker to build and optimize an ML model that detects potential telecom churn.

Food Crop Disease Detector (Anomaly Detection AI)   *Mar 2023 – Apr 2023*
- Developed a self-attention TensorFlow model based on Vision Transformer (ViT) architecture for tomato leaf disease detection.

COVID-19 Tweets Analysis (Analytical AI)   *Oct 2022 – Dec 2022*
- Implemented an end-to-end NLP pipeline in Python, including crowdsourcing, data preprocessing, feature engineering, and model training with Cohen's kappa, bag-of-words, and SVM to classify COVID related tweets into multiple categories.

LEADERSHIP & MENTORSHIP

Mentor and Coordinator, Keystone Youth Center   *Sep 2019 – July 2023*
- Guided high school students in academic & social life by weekly group gatherings and 1-1s, summer camps, and social events.

Keystone Kids Academy   *Sep 2019 – June 2022*
- **Principal** – Hired personnel, held bi-weekly check-in meetings with head teachers, cooperated with the board for budgeting, communicated with 70+ families and 100+ students of diverse backgrounds.
- **Head Teacher** – Collaborated staff to prepare curriculum, class material, and seminars. Monitored progress, shadowed 10 interns.
- **Teacher** – Taught Coding, Character Education, and Turkish classes for K-5.