ALI GUZELYEL

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EDUCATION

Illinois Institute of Technology, Chicago, IL
M.S. in Artificial Intelligence – GPA: 3.85/4.0   *Jan 2022 – Dec 2023*
B.S. in Computer Science – GPA: 3.93/4.0   *Aug 2019 – Dec 2023*
Relevant Courses: Algorithms, Big Data Tech, Cloud Computing, Computer Vision, Data Mining, NLP, OOP, OS, Software Dev
Clubs, Hackathons: ACM@IIT, ML@IIT, MLH, INIT, DemonHacks, UncommonHacks

TECHNICAL SKILLS

Languages:	Python, Java, C#, C, Cython, R, React.js, SQL, NoSQL
Libraries:	TensorFlow, OpenCV, Scikit-learn, NumPy, Pandas, PyDrake
Frameworks:	AWS S3, Hadoop, Spark, Linux, .NET Core, Android Studio
Tools:	MongoDB, PostgreSQL, Git, Vim, Docker, VR Headset

WORK EXPERIENCE

Machine Learning Intern, Sonsuz Design   *Sep 2023 – present*
- Building a recommender system (AI) for flight and hotel recommendation algorithm on a trip advisor website.

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, redesigned 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.

CS Teaching Assistant, Illinois Institute of Technology   *Aug 2023 – present, Aug 2021 – Dec 2021*
- Assisting introductory computer science classes to lead freshman students in forming a community.

PERSONAL PROJECTS   *more on GitHub*

Food Crop Disease Detector   *(currently revising) Mar 2023 - Apr 2023*
- Developed a specialized TensorFlow model based on the Vision Transformer (ViT) architecture for tomato leaf disease detection.
- Utilized ML algorithms to build self-attention mechanisms for the Transformer model and optimize for better evaluation metrics.

COVID-19 Tweets Analysis   *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.

Energy Management System (EMS)   *May 2020 – June 2020*
- Developed an EMS mechanism in Java that monitors city-wide spikes in energy consumption and reduces them to safe thresholds.

LEADERSHIP & MENTORSHIP

Mentor and Coordinator, Keystone Youth Center   *Sep 2019 – July 2023*
- Guided KYC high school students to excel in academic and personal life by coordinating year-long mentorship programs.
- Provided supportive environment through social events, summer camps, weekly group gatherings and one-on-ones.

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 teachers to create lesson plans, curriculum, and material. Monitored progress, attended classes, shadowed 10 interns, and invited experts to give insights.
- **Teacher** – Taught Coding, Character Education, and Turkish classes for K-5.