Kamran Majid

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Education

- **University of Washington** — Seattle, WA
  Doctor of Philosophy — *Expected Graduation, December 2030*
- **University of Illinois Urbana-Champaign** — Champaign, IL
  Bachelor of Science in Computer Science, Dean's List — *August 2021 - May 2024*
  - **Relevant Coursework**: Data Structures, Discrete Structures, Linear Algebra with Computational Applications, Software Design Lab, Probability and Statistics for CS, Intro to Computer Systems, Intro to Robotics, Ethical Theories, Minds and Machines, Mobile Robotics for CS, Theory of Knowledge, Intro to Algorithms and Models of Computation, Artificial Intelligence, Advanced Symbolic Logic, Programming Languages and Compilers, Intro to Quantum Computing

Experience

- **Software Engineer** — Hawthorne, CA
  SpaceX (Starship/F9) — *Aug 2024 - Apr 2025*
  - Created data ingestion pipeline for flight assets
  - Reverse engineered customer tracking software for internal use
- **Software Engineering Intern** — Redmond, WA
  SpaceX (Starlink) — *Jan 2024 - Aug 2024*
  - Created a toolset to optimize the Starlink ground network
  - Wrote simulation algorithms to prioritize low-latency ground assets
- **Software Engineering Intern** — Plano, TX
  Capital One — *Jun 2023 - Aug 2023*
  - Built an end-to-end alerting system to detect data anomalies
  - Integrated ML into internal data pipelines
- **Software Engineering Intern** — Washington, DC
  NASA — *Jun 2022 - Dec 2022*
  - Worked on GDC mission concept for space weather observation
  - Built data engineering tools for predictive analyses
- **Research Intern (REU)** — Urbana, IL
  National Center for Supercomputing Applications — *Jun 2022 - Aug 2022*
  - Conducted predictive simulations for scramjet designs
- **ML Researcher** — Urbana, IL
  University of Illinois Urbana-Champaign — *Nov 2021 - May 2022*
  - Developed LSTM model for soft robotic arm kinematics

Projects

- **Data Augmentation Pipeline**: Created a pipeline for image augmentation using C++, Boost, OpenCV.
- **Airport Pathfinding**: Developed a pathfinding tool using Djikstra's and PageRank algorithms.
- **Spot Nano**: Reverse engineered Boston Dynamics' Spot robot using an LSTM and inverse kinematics model.
- **DecARate**: Built a DCNN to detect architectural style for optimal Halloween decoration layouts.
- **CustomVent**: Developed a deep neural network to optimize ventilator splitter nozzle size during the pandemic.

Skills

Programming Languages: Python, JavaScript, Java, C++, C, SQL, Bash, TypeScript, Go, R, HTML/CSS

Frameworks/Libraries: React, Flask, Node.js, Express.js, TensorFlow, Keras, PyTorch, Scikit-learn, OpenCV, FastAI

Platforms: AWS, Azure, GCP, Kubernetes, Docker, Snowflake, Firebase, Raspberry Pi, Linux, MacOS

DevOps: Terraform, Ansible, Jenkins, Git, GitHub, Kubernetes, Docker, Prometheus, Grafana, Telegraf, InfluxDB

Data Engineering: SQL, Pandas, Spark, Deep Learning, NLP, Computer Vision, Apache Kafka

Web/Mobile Development: RESTful APIs, GraphQL, React Native, Flutter, WebSockets, Firebase

Tools: PyCharm, Visual Studio Code, Google Colab, Figma, Selenium, JIRA, Postman, Docker Desktop

Languages: English (Fluent), Spanish (Basic), Urdu (Fluent), Arabic (Basic)

Awards

Hackathons: 2nd Place Yale, 1st Place CodeHax, 3rd Place MLH Hack-o-Lantern.

Robotics: 2x TSA Robotics State Champion, VEX World Championship, US Open Qualifier