Muhammad Faks

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EDUCATION

Oregon State University — Corvallis, OR
Master of Science in Computer Science — *Expected June 2026*

Oregon State University — Corvallis, OR
Bachelor of Science in Computer Science — *Expected June 2025*
GPA: 3.95; Dean's List: Fall 2021 - Present

Coursework: Machine Learning, Databases, Full-Stack Development, Object-Oriented Programming

PROFESSIONAL EXPERIENCE

Data Analyst Intern — June 2024 – Present
Daimler Truck North America — *Gastonia, NC*
- Analyze company data warehouse leveraging Python, Jupyter Notebooks, and Google Colab to develop predictive models for case studies assessing manufacturing equipment performance.
- Create data visualizations with Matplotlib, Seaborn, and PowerBI to present key insights to business leaders, enhancing decision-making and operational efficiency.

Student Software Developer — April 2023 – June 2024
Center for Applied Systems and Software, Oregon State University — *Corvallis, OR*
- Implemented 8 REST APIs using ASP.NET and C# to optimize backend infrastructure and performance.
- Architected a scalable Microsoft SQL Server database to efficiently manage 500+ load assignments for end-users.
- Utilized Tableau to clean and analyze 750,000+ course registration records from an Amazon Redshift data source and create visualizations to optimize university scheduling decisions.
- Designed tailored web interfaces with React and Typescript to 2,000+ university faculty and administrators.

RESEARCH EXPERIENCE

Machine Learning Undergraduate Researcher — April 2024 – Present
Foundations of Data Centric Systems Lab, Oregon State University — *Corvallis, OR*
- Develop online learning models to optimize the speed and accuracy of database query algorithms by up to 40%.
- Utilize PostgreSQL and TPC-H benchmarks to conduct evaluations analyzing the impacts of memory allocation and reward measurement on algorithm performance.
- Effectively communicate findings to professors and lab members, with ongoing efforts to publish in ACM-SIGMOD.

PROJECTS

QueryCorner | *TypeScript, React, Clerk OAuth, Convex, Next.js*
- Developed a prompt-sharing platform to improve AI workflow speed with Large Language Models by +70%.
- Utilized OpenAI's TE-3-S model and Convex's vector search to analyze semantic similarity of 100,000+ prompts.
- Designed a user-friendly interface (React/Tailwind/shadcn), integrating secure account settings via Clerk OAuth.

LEADERSHIP EXPERIENCE

Vice President — May 2023 – Present
Society of Asian Scientists and Engineers, Oregon State University — *Corvallis, OR*
- Orchestrate the inaugural Big-Little mentorship program, personally mentoring 8 first and second-year students.
- Promote diversity, innovation, and ethical leadership principles though 20+ events for 60+ active members.

Executive Vice President — Feb 2023 – Present
College of Engineering Student Council, Oregon State University — *Corvallis, OR*
- Collaborate with College of Engineering leadership to formulate policies benefiting 10,000+ engineering students.
- Lead the freshman leadership council while orchestrating regional conferences, spirit weeks, and awards ceremonies.

TECHNICAL SKILLS

Languages: Python, SQL, C/C++, C#, JavaScript, TypeScript
Machine Learning Libraries: PyTorch, TensorFlow, NumPy, pandas, Scikit-learn
Frameworks: React, Node.js, Express.js, ASP.NET MVC
Data Technologies: MySQL, MongoDB, Microsoft SQL Server, Tableau, PowerBI, Jupyter Notebook, Google Colab
Tools: Docker, RabbitMQ, Kubernetes, Google Cloud Platform, Git, CI/CD, Scrum, Microsoft Office Suite