Yusuf Halim

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Education

The University of Iowa | Iowa City, IA   May 2025
B.S.E. – Computer Science & Engineering

Certifications

AI Programming with Python Nanodegree | Udacity   February 2024
Microsoft Azure Quantum Winter School | Qubit by Qubit   February 2023

Technical Skills

Languages: Java, Python, Objective C, C, C++, C#, Ruby, Dart, JavaScript, Haskell, Q#
Frameworks: Angular.js, .Net, Django, SpringBoot, Docker, Ruby On Rails, React.js, RESTful APIs, Node.js, Flutter
CI/CD Tools: Git/Github/Gitlab, Atlassian/Jira/Confluence, Google Cloud, Azure Cloud, AWS/S3/EC2/Sagemaker
IDE Tools: VS Code, IntelliJ, PyCharm, CLion, Android Studio, RubyMine, RStudio, MATLAB
Machine learning Tools: Pandas, NumPy, Matplotlib, Seaborn, SimpleCov, Scikit-Learn, PyTorch, TensorFlow
Testing tools: JUnit, RSpec, Capybara, Jasmine, Vitest, Cucumber, Pytest/Pytest-Docker, Selenium
Data Tools: Spark, Hadoop, PostgreSQL, MySQL, MongoDB

Experience

The University of Iowa IT Services | Iowa City, IA   June 2023 – Present
IT Support Assistant   January 2025 – Present
- Provide technical assistance to students, faculty, and staff via phone, email, live chat, and in-person interactions
- Troubleshoot and resolve hardware, software, and network issues to minimize disruptions
- Assist users with device registration, password resets, and account management for secure access
- Document and track service requests using the university's IT service management system

Specialist Assistant   September 2024 – January 2025
- Installed and maintained fiber optic cabling to support campus network and wireless infrastructure
- Collaborated with Enterprise Infrastructure team to manage and upgrade communication closets
- Assisted in deploying and configuring network hardware to expand campus-wide coverage
- Conducted routine inspections and troubleshooting to minimize downtime and maintain operations

Software Developer Intern   June 2023 – August 2024
- Enhanced user experience and functionality by developing and maintaining MyUI and MAUI systems
- Resolved over 100 bugs to boost system reliability and efficiency
- Contributed to 50 projects, innovating and implementing platform features
- Engaged in full-stack development, delivering on both front-end and back-end components

The University of Iowa | TRIO SSS | Iowa City, IA   October 2024 – December 2024
Engineering Tutor
- Conducted individual and group sessions for Calculus, Engineering Problem Solving, and Circuits
- Tailored learning approaches to diverse styles and academic needs
- Applied theoretical knowledge to help students solve real engineering challenges
- Monitored progress, providing constructive feedback to boost understanding and confidence

The University of Iowa Department of Engineering | Iowa City, IA   August 2023 – May 2024
Software Engineering Research Assistant
- Revived assistive app for visually impaired, leveraging spatialized audio for enhanced navigation
- Integrated 3D world scanning and AirPods support for dynamic, real-time feedback
- Debugged and tested app to ensure performance and dependability

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Projects

Athletic Insider | *Django, React.js, PostgresSQL, Docker, Apache Airflow, Jira, AWS*   January 2025 – Present
- Automate 200+ branch creations saving 150 minutes for development time
- Document all team meetings and project details in Confluence to ensure transparency and easy access
- Assist team of 5 in environment setup to accelerate configuration and boost development speed
- Implemented testing strategies that reduced production bugs by 25% and boosted overall app reliability
- Developed RESTful API endpoints with Django, ensuring data flow between the frontend and PostgreSQL database
- Containerized microservices using Docker and streamlined deployments on AWS EC2, resulting in improved scalability and a 30% reduction in system downtime
- Collaborated with cross-functional teams using agile and scrum methodologies to incorporate user feedback, continuously refining the platform for enhanced usability and transparency

SmartLink | C++, Python, PyTorch, ExecuTorch, Raspberry Pi, RF Modules, Git   January 2025 – Present
- Develop a two-way ML compression framework using autoencoders to extend wireless range and reliability
- Integrate modular control and remote devices for low-latency video transmission and responsive control
- Engineer RF communication protocols that reduce bandwidth consumption while ensuring error resilience
- Collaborate cross-functionally among RF, embedded, and robotics teams to optimize system design

Shards of the Grids | *Ruby on Rails, Haml, Postgres, Heroku, Git*   August 2024 – December 2024
- Crafted and implemented a responsive web app design to elevate user engagement and visual consistency
- Debugged and tested code with over 90% coverage to uphold quality standards and minimize deployment risks
- Enforced strict branch rules via Git workflows to reduce merge conflicts and prevent unauthorized code changes
- Led regular agile stand-up meetings (how) to provide status updates and promptly address challenges
- Documented sprints and finalized the database schema to ensure project transparency and knowledge sharing

Flowers Image Classifier | *Python, PyTorch, VGG16, DataLoader, Matplotlib*   January 2024 – February 2024
- Developed a deep learning model with PyTorch, achieving high accuracy in flower image classification
- Employed data augmentation with DataLoader to improve model generalization and reduce overfitting
- Built a Command-Line interface app to facilitate user-friendly training and prediction on custom datasets

ISocial | *Java, Firebase, UI/UX design, Android Studio, Git* | 1st Place Recipient   January 2021 – March 2021
- Developed an Android app with a Java integrating Google Auth to provide secure and seamless user access
- Leveraged Firebase for real-time user data storage to enable smooth login and robust profile features
- Refined UI/UX through iterative design enhancements to balance functionality with intuitive user experience

Engineering Student Organizations

Institute of Electrical & Electronics Engineering (IEEE) | *Secretary*   September 2024 – Present
- Document meeting minutes and maintain records for seamless information sharing amongst 76 members
- Assist in re-establishing the IEEE Student Branch and achieving university recognition
- Manage correspondence, coordinate event schedules, and share updates with members
- Oversee membership rosters and committee assignments to ensure efficient organizational operations
- Ensure adherence to branch's constitution and bylaws to promote organizational integrity and compliance

National Society of Black Engineers (NSBE) | *Member*   August 2024 – Present
- Participate in monthly professional development and networking events, enhancing industry connections
- Engage in community outreach initiatives to promote STEM education and pursue engineering careers
- Volunteer in career fair setups and student check-ins to maintain an efficient flow and minimize waiting times