ASHSMITH KHAYRUL

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EDUCATION

Northeastern University **Sep 2025 - Dec 2028**
Boston, MA

Bachelor of Science in Computer Science and Business Administration (GPA: 3.91 / 4.0)
Concentration in Finance, Dean's List

- Relevant Coursework: Databases, Intro to Program Design (Pyret), Program Design (Python), Discrete Mathematics

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, Pyret, HTML/CSS
Frameworks and Tools: Node.js, Docker, Git, Shell, Databases, Nginx
Systems: Linux, macOS, Windows

EXPERIENCE

Northeastern University **Jan 2026 – Present**
Research Assistant
Oakland, CA

- Supporting a City of Oakland–Northeastern University partnership focused on responsible AI adoption in local government.
- Contributing to applied research evaluating the effectiveness and risks of Large Language Models (LLMs), primarily Microsoft Copilot, in scaling community support services
- Responsibilities include survey and log data analysis (IRB-approved), coding and labeling qualitative interview transcripts, conducting literature reviews, and identifying AI product features to improve safety, equity, and usability in the Oakland context

PROJECTS

AshBot **Jul 2023 – Feb 2026**

- Architected and deployed a Node.js backend serving 1,200+ servers and 250,000+ users, implementing event-driven, asynchronous command handling for high-concurrency workloads.
- Designed an indexed MySQL data layer with Redis caching, reducing database load and improving response latency under peak traffic conditions.
- Migrated from a single-process deployment to a sharded, containerized Docker architecture on Linux VPS infrastructure, improving scalability, fault tolerance, and production reliability.

Uniplex Host **Jul 2023 – Present**

- Built and operated a Docker-based hosting platform with automated provisioning and billing integrations via WHMCS APIs, enabling scalable service lifecycle management.
- Managed multi-node Linux infrastructure, optimizing compute and memory allocation while maintaining ~99% uptime across US regions.
- Implemented monitoring, reverse proxy configuration (Nginx), and automated recovery mechanisms to support 24/7 production-grade workloads.