Arfaz Hossain

+ 1 (250) 880 8402 | arfazhussain@uvic.ca | linkedin.com/in/arfazhussain | github.com/arfazhxss

EDUCATION

University of Victoria   Victoria, BC
Bachelor of Engineering in Software Engineering   *Sept. 2021 - (expected) May 2026*

TECHNICAL SKILLS

Languages: TypeScript, Python, Java, JavaScript, Swift, C++, HTML, CSS, MATLAB, R
Frameworks and Libraries: Next.js, React.js, Node.js, Express, Material, Shadcn, Tailwind
Databases: PosgreSQL, SQLite, MongoDB, MySQL, Redis, DynamoDB, CloudSQL
Developer Tools: Visual Studio, IntelliJ, JUnit, Eclipse, Maven, Gradle, Git, Docker

EXPERIENCES

Software Team Lead | *TypeScript, React.js, Next.js*   Feb 2023 - Present
VikeLabs   *Victoria, BC*

- Collaborated with 5+ team leads to organize workshops for 100+ CS and software engineering students
- Collaborating with executives from 3+ student clubs to co-host tech events, boosting attendance by 25%
- Fostering partnerships with other student organizations, expanding resource-sharing opportunities

Data Analyst and Marketing Intern | *Python, NumPy, Pandas*   Jan 2021 - Aug 2021
Momentous Properties Ltd.   *Dhaka, Bangladesh*

- Analyzed real estate market data using Excel which improved accuracy of property valuations by 7%
- Developed Python scripts to automate data scraping and bash scripts for cleaning and analysis
- Compiled and presented data reports through automated Excel macros processes

TECHNICAL PROJECTS

Course Planner | *Next.js, React.js, TypeScript, PostgreSQL, Tailwind*   Feb 2024 - Present
www.github.com/arfazhxss/course-planner   *Victoria, BC*

- Developed a course planning tool using Next.js to help students plan courses and track degree progress
- Integrated PostgreSQL for database management of course data and user information
- Implemented drag-and-drop functionality in React with state functions to enhance user interactivity
- Designed the User Experience using TailwindCSS to create a seamless and intuitive user experience

Automated Application System | *Bash, Python, LaTeX*   Dec 2023 - Present
www.github.com/arfazhxss/app-sys   *Victoria, BC*

- Automated and streamlined entire job application process optimizing workflow and data handling
- Utilized multithreading for simultaneous data extraction and processing tasks, reducing runtime by 60%
- Built command-line tools for data input, and batch file processing, reducing manual efforts by 90%
- Increased consistency by 70% by implementing proper data cleanup and extraction

Jabref - Open Source Contributions | *Java, JUnit*   Dec 2023 - May 2024
www.github.com/arfazhxss/jabref   *Victoria, BC*

- Developed 100+ unit tests to ensure end-to-end correctness of file lookup in JabRef's database
- Implemented 20+ caching tests to optimize JabRef's performance and memory management
- Implemented 30+ integration tests to verify correct interactions between multiple modules and classes
- Engineered end-to-end functional tests validating bibliography management workflows

Ground Support System | *React.js, TypeScript, MongoDB, Figma*   Jul 2023 - Jan 2024
www.github.com/UVicRocketry/Ground-Support   *Victoria, BC*

- Collaborated with 13 developers to create portable telemetry software for rocket performance analysis
- Developed front-end components using TypeScript and contributed to the final Figma designs
- Integrated live telemetry data from MongoDB database into MaterialUI tables for post-flight analysis
- Implemented data visualizations with MaterialUI tables and charts for engineering students

Rubik's Cube (3D Simulation) | *C++, OpenGL*   Feb 2023 - June 2023
www.github.com/arfazhxss/rubiks-cube-cpp   *Victoria, BC*

- Developed a 3D simulation with OpenGL, integrating GLSL for visuals and math operations
- Created intuitive keyboard controls for cube rotations using keys like L, J, I, K
- Enhanced user interaction with dynamic zoom via keyboard shortcuts

Lexicographic Context Mapper | *Python, C, Regex, Make*   May 2023 - August 2023
www.github.com/arfazhxss/lexigraph   *Victoria, BC*
- Built a concordance tool to index keywords in text files, with memory management in C
- Integrated regex for precise keyword pattern matching and context extraction
- Implemented exclusion lists for customizable keyword filtering in text analysis

VEX Robotics Project | *Embedded C, Version Control, Git*   Jan 2022 - April 2022
www.github.com/arfazhxss/vex-robotics-project   *Victoria, BC*
- Programmed a VEX robot to perform tasks using IR and sonar sensors, limit switches, and LEDs
- Developed control logic for movement, object detection, and obstacle avoidance
- Integrated mechanical, electrical, and sensor systems for a final demonstration

T-Rex Game - Java Implementation | *Java, Swing, OOP*   Aug 2021 - Dec 2021
www.github.com/arfazhxss/t-rex   *Victoria, BC*
- Developed a cross-platform Java game emulating Chromes offline DinoGame
- Implemented object-oriented design for clear separation of player, obstacle, and game logic
- Created a game loop to manage input events, game state, and rendering using Java Swing

COMMUNITY ENGAGEMENT & VOLUNTEERING EXPERIENCES

Graphics and LinkedIn Coordinator   Jan 2023 - Present
Engineering and Computer Science Students Society   *Victoria, BC*
- Created 40+ posters and social media campaigns for engineering events
- Volunteered at 20+ events, enhancing student engagement and participation
- Updated and maintained ECSS website and exam bank accessed by 600+ engineering students

Mentor, Tutor and Volunteer   Jan 2023 - Present
University of Victoria Students Society   *Victoria, BC*
- Mentored 5 first-year students, providing academic guidance and fostering a supportive community
- Volunteered 50+ hours to support and enhance the international student experience

Rescue Volunteer   Aug 2019 - May 2021
Bangladesh Animal Welfare Foundation, Obhoyaronno   *Dhaka, Bangladesh*
- Advocated for responsible pet ownership through community outreach, creating 15-20 monthly posters
- Collaborated with teams of 5-7, including volunteers and veterinarians, rescuing 10-15 street animals
- Built and maintained strong relationships with local businesses to support animal welfare initiatives

REFERENCES

Le Hung Nguyen   **Mohammad Ali Akber**
Ph.D. Candidate, Department of Electrical and   *Software Development Engineer,*
Computer Engineering, University of Victoria   *Amazon Payment Platforms*

lehung.nguyen27@gmail.com   mail2aliakber@gmail.com
(236) 990-2709   (250) 813-3070

HONORS AND AWARDS

- **Recipient of University of Victorias International Entrance Scholarship**   2021 - 2022

CERTIFICATIONS

- **Next.js & React.js - *Udemy, Maximilian Schwarzmller***   2024
- **Understanding TypeScript - *Udemy, Maximilian Schwarzmller***   2024
- **Computational Geometry Algorithm in C++ - *Udemy, Kasun Liyanage***   2024
- **BackEnd Development in Node.js & Express - *Udemy, Jonas Schmedtmann***   2022 - 2024
- **Agile Fundamentals: Scrum & Kanban - *Udemy***   2023
- **Computer Graphics with Modern OpenGL & C++ - *Udemy, Ben Cook***   2023
- **Data Structures & Algorithms in C and C++ - *Udemy, Abdul Bari***   2023
- **JavaScript ES6 - *Udemy, Jonas Schmedtmann***   2022 - 2023
- **Complete Web Bootcamp - *Udemy, Angela Yu***   2021