Bereket Faltamo

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Education

Northeastern University — Boston, MA
Master of Science in Computer Science(Co-op), GPA: 4.0 — *May 2025 (Expected)*

Korea Advanced Institute of Science and Technology (KAIST) — Daejeon, Korea
Bachelor of Science in Mechanical & Electrical Engineering(Double Major) — *Feb 2017 – Dec 2021*

Relevant Coursework: Data Structures, Algorithms, Object-Oriented Design(Java), Operating Systems(C), Machine Learning, Computer Vision, Web Development(Audit)

Technical Skills

Languages: Java, Python, C, C++, JavaScript, HTML/CSS, MATLAB
Frameworks: Bootstrap, jQuery, React, Node.js, Express, NoSQL(MongoDB), SQL, REST API, JUnit
Libraries: OpenCV, Keras, PyTorch, NumPy, Matplotlib
Developer Tools: Git, Unix Shell, UML, VS Code, IntelliJ

Experience

Teaching Assistant | *CS 5002: Discrete and Data Structures* — Dec 2022 – Present
Northeastern University Khoury College of Computer Sciences — *Boston, MA*

- Held office hours for 80+ students to review course content and problem sets
- Resulted in a 100% pass rate for student repeating the class by conducting one-on-one tutoring sessions

Summer Geometry Intern — July 2023 – Aug 2023
Massachusetts Institute of Technology (MIT) — *Boston, MA*

- Evaluated various random meshing strategies and assessed their effectiveness using the Heat Method
- Developed a C++ tool using libigl library to automate 3D object segmentation into developable surfaces
- Implemented Iterative Closest Point algorithm using Hausdorff distance for shape correspondence

Robotics Software Engineer — Apr 2022 – Aug 2022
DOGU Co., Ltd — *Seoul, Korea*

- Achieved a 20% reduction in docking time for service robots by developing a docking algorithm utilizing ROS move base stack, Python and C++
- Integrated RTAB-Map SLAM algorithm to the robot's perception system using RGB-D camera

Projects

NU-foundit! | github.com/anjulo/neu-foundit — Aug 2023 – Present

- Developed a lost and found web application in JavaScript for Northeastern University members
- Engineered a RESTful API server with Node.js and Express.js, connecting to MongoDB to manage lost and found item records and user interactions securely
- Designed a user-friendly Single Page Application (SPA) using React and Redux, integrating Bootstrap for responsive and intuitive web pages

Tux Shell | github.com/anjulo/tsh — Feb 2023 – Mar 2023

- Architected and implemented a Unix command-line interface that parses and executes user input commands
- Utilized C and Unix system calls to execute shell commands, providing users with access to basic file management and process control functionality
- Thoroughly tested the implementation using Perl script

Shapes Album | github.com/anjulo/shapes-album — Nov 2022 – Dec 2022

- Designed and executed a custom Java photo album using Model-View-Controller(MVC) architecture and OOP/OOD principles
- Developed user-friendly graphic and web viewers using Java Swing and HTML/CSS
- Achieved a robust functionality with a 90% test coverage utilizing JUnit testing