Asir A. Alam

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Education

UNIVERSITY OF CENTRAL FLORIDA **AUGUST 2020 – MAY 2025**

- B.S. in Computer Science (Expected May 2024)
- M.S. in Computer Science (Expected May 2025)
- GPA: 3.96/4.0
- Burnett Honors College

Experience

META – SWE INTERN – FACEBOOK GAMING: PLAY + FANTASY **MAY 2023 – AUGUST 2023**

- The project was a full-stack instant games developer facing tool in React.
- Completed the core project plan weeks ahead of schedule and moved on to stretch goals.
- Investigated and came up with my own stretch goals by working with cross-functional partners such as content designers, partner engineer, and legal. These were highly impactful stretch goals that helped solidify the tool before launch.
- Worked on the frontend using React, database queries using GraphQL, and server-side logic using Hack.

META – SWE INTERN – FACEBOOK SHOP ADS **MAY 2022 – AUGUST 2022**

- Completed the intern project ahead of schedule, then designed and completed another stretch project.
- Coded frontend (Android - Java) and backend (Hack - PHP) implementations of new features for new shop ad formats.
- Built a React-based internal tool for sample size calculations for A/B testing on new features. Upon launch, the tool extended traction towards engineers beyond our team.
- Participated in "better engineering" tasks (writing documentation, stale code cleanups, privacy tasks, and unit tests).

UCF ICPC PROGRAMMING TEAM – VARSITY MEMBER **SEPTEMBER 2020 – MAY 2023**

- Solved hundreds of problems in preparation for the International Collegiate Programming Contest (ICPC). Participated in many competitive programming contests (ICPC, Codeforces, Kattis, collegiate contests, etc.).
- Used advanced data structures, algorithms, math, and other techniques for problem-solving.
- UCF High School Programming Tournament Judge 2020-2023 - Authored problems and helped develop problem sets.

Projects

MIPS PROCESSOR SIMULATOR

- Wrote a single-cycle data path MIPS processor simulator in C, which reads in a file containing MIPS machine codes and simulates the MIPS processor's steps cycle-by-cycle.

HANDLER - REACT FULL STACK WEB PROJECT

- Worked on Handler, a MERN (MongoDB, Express, React, Node.js) stack web project that allowed users to list or request various kinds of services. It allowed users to search based on the type of services, location, or browse using the map.
- Used several npm libraries for core functionalities and for making the UI intuitive and aesthetic. E.g.: google maps, framer motion, etc.

PARALLEL KARATSUBA - **github.com/abrugal/ParallelKaratsuba**

- Led the programming and experimental aspects of a research paper on parallelizing the Karatsuba Multiplication Algorithm.

Skills, Coursework, & Honors

- **Programming:** C++ (40k lines), Java (20k lines), JavaScript (10k lines), Hack/PHP (8k lines), C, Python.
- **Certification:** Oracle Certified Associate, Java SE 8 Programmer
- **Relevant University Coursework:** C Programming, CS 1 & 2 (DSA in C and Java), Discrete Structures 1 & 2 (Logic, Proofs, Problem-Solving, Complexity Analysis, State Machines), OOP (Java), Web Development, AI & ML (Python), Parallel and Distributed Systems, Bioinformatics (grad), Algorithm Design and Complexity (grad).
- **Software:** Visual Studio Code, Android Studio, Git/Github, Mercurial, NodeJS, GraphQL.
- **Languages:** Fluent: English, Bengali; Limited Working Proficiency: German, Hindi
- National Science Foundation (NSF), Florida IT GAP Scholarship (Fall 2021 – Present)

References Available Upon Request

August 2023