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Nathan Kolbas

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Education

Lincoln, NE University of Nebraska Lincoln Aug 2019-May 2023

Major: Software Engineering (Overall GPA: 3.95)

Minor: Mathematics

- **Coursework:** Software Architecture and Design, Requirements Engineering, Data Modeling, Testing and Analysis, Maintenance, Human Factors, Mentoring and Leadership, Technical Communication.
- Clubs and Activities: Game Development Club: Team Lead, Cornhacks 2020 Hackathon

Employment

Software Engineer Intern Firespring May 2019-Jul 2020

St. Baldrick's (https://www.stbaldricks.org/): Nonprofit organization fighting childhood cancer.

- Full-stack production developer.
- Utilized my hard work ethic to learn Git, Ruby on Rails, PHP, and development tools to release production code in under a month.
- Worked in an Agile environment and team to release code in sprints, communicated with a team to resolve roadblocks, and worked in a large codebase utilizing several languages and technologies.

Software Engineer Intern

Nelnet

May 2021-Sep 2021

Campus Key Team: Integrating Realtime Chat for both Students and Classes.

- Full-stack developer.
- Built a prototype chat app that utilizes Firebase Database, Auth, Functions, FCM; Kotlin, and Android that allows students to communicate, create groups, and join class chats.
- Agile development environment working with the team to deliver progress updates in sprints with demos, presentations, and releases.

Research

University of Nebraska Lincoln

Aug 2021-Present

Undergraduate Student Working on Cyber Security in Software for the Federal Government.

• Leveraging my skills and knowledge with the Compiler and Assembly.

UTA

University of Nebraska Lincoln

Aug 2020-Present

Undergraduate Teaching Assistant for Software, Science, and Engineering Courses

- SOFT 160: Common tools and techniques for developing, analyzing, testing, debugging, and managing software and software-related artifacts.
- SOFT 161: Topics include advanced data structure, persistent data storage, object-oriented programming, and techniques for testing complex software systems.
- SOFT 260: Advanced data structures and their associated algorithms for solving computational problems. Techniques for systematically specifying, managing, and analyzing software requirements, and for managing software change and working effectively in teams.
- CSCE 231: Introduction to organization, structure, and applications of computer systems. Boolean Logic, Digital Arithmetic, Processor Organization, C Programming, Machine Language Programming, Input/Output, Memory Organization and Management, Building Embedded System Application.

Software Projects

Websites: github.com/nathankolbas (personal projects), simplycomplexapps.com (Simply Complex Apps applications)

Tell Me – Text to Speech

- Built under Simply Complex Apps and released on the Google Play Store with over 500,000 downloads.
- Utilized Android material design and Java.

Random Notification Sounds

- Built under Simply Complex Apps and released on the Google Play Store.
- Utilized Android material design and Java.

Food Toxicity Scanner

- Originally developed during the 2020 Cornhacks.
- Rebuilt from the ground up with fully working frontend and backend in under one week.
- Utilized my skills in Flutter/Dart, Ruby on Rails, and Postgres.

UNL Software Engineering Discord Bot

- Built to notify the 2019 software engineering cohort about upcoming assignments.
- Utilized my skills in Ruby, networking, and Windows to retrieve upcoming assignments from the Canvas API. Using the Discord API, students are then notified. If an error occurs, I am then notified via Slack.

Skills

Software: (Expert): Ruby, Rails, Python, Java, Kotlin, Flutter/Dart, Android, Web Development, Agile, Firebase, Networking, Unix, Windows, VirtualBox, Git. (Advanced): JavaScript, C, Assembly, MySQL, Postgres, Cucumber, Docker. (Intermediate): PHP, Perl, AWS.