

# MICHAEL KHA

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## EDUCATION

### Rochester Institute of Technology

Rochester, NY

*B.S. in Software Engineering, Minor in Mathematics & Computer Science*

Expected Aug 2021

GPA: 3.7, Senior Standing; Coursework: Algorithms & Data Structures, Web Development, Design Patterns, HCI & UX Design, Process and Project Management, Requirements and Architecture, Embedded Systems, Cloud Computing, Applied Statistics, Multivariable Calculus, Linear Algebra, Combinatorics, Graph Theory

## EXPERIENCE

### Norfolk Southern Corporation

Atlanta, GA

*IT Intern, Strategic Intermodal Management Systems (SIMS) Team*

May 2019 - Aug 2019

- Part of operations and maintenance team for legacy, mission-critical distributed system for intermodal shipping.
- Deployed changes to production for issues identified by business analysts on existing batch jobs and scripts.
- Assisted in adapting server architecture of ExpressNS mobile app from MobileFirst to JBoss by writing adapters.
- Analyzed business logic from enterprise application to written domain requirements for Java development.
- Leveraged: Java, JavaScript, C, Python, Perl, DB2 SQL (Toad), Uniface, TFVC, PVCS, Jenkins, Cron

## TEAM PROJECTS

### Library Book Management System ([github.com/mxk5025/lbms](https://github.com/mxk5025/lbms))

Feb 2019 - Apr 2019

- Collaboratively developed a library information management system with visitor account using design patterns.
- Acted as lead architect to model a high-level design from explicit requirements using UML diagrams.
- Drafted design doc detailing architecture, subsystems, classes, interactions, design choices, and trade-offs.
- Revised system to meet additional API and view requirements, while maintaining high cohesion and low coupling.
- Utilized: Java, JavaFX, Maven, Google Books API, Regex, Git, Design Patterns, UML, Trello

### Web Checkers

Oct 2018 - Dec 2019

- Developed an online checkers web application using Spark web framework to integrate to existing client-side Ajax.
- Applied a Scrum Board to propose features to be iteratively implemented over three sprints by team members.
- Produced design doc highlighting modular, object-oriented design following SOLID and GRASP design principles.
- Researched and wrote HTTP requests and server-side routing to follow MVC architecture and state diagrams.
- Achieved 95% code coverage on unit tests and three stretch goals beyond the minimum viable product.
- Utilized: Java, Maven, Spark, Freemarker, HTML, JUnit, Regex, Git, UML, Agile (Scrum), Trello

## PERSONAL PROJECTS

### Swatches Web App ([github.com/mxk5025/swatches](https://github.com/mxk5025/swatches))

Aug 2019 - Sep 2019

- Built and deployed an interactive color scheme generation tool using React Hooks and iro.js color picker widget.
- Implemented user input support for unicode, hex, RGB, and HSL color formats with error handling by regex.
- Emphasis on usability and performance of user interactions when selecting colors and editing schemes.
- Utilized: HTML, CSS, JavaScript, Node.js, npm, React Hooks, Material-UI, Regex, Git

### Stock Portfolio Web App ([github.com/mxk5025/stock-portfolio](https://github.com/mxk5025/stock-portfolio))

Jul 2019 - Aug 2019

- Created and deployed a React application to tabularize procured stock information from IEX Cloud.
- Researched and applied asynchronous JavaScript and React Hooks. Employed fuse.js for lightweight fuzzy-search.
- Focused on UI & UX design of input form and table output, while modularizing React components.
- Added menu and settings UI enhancements to allow for user to modify functionality of features.
- Utilized: HTML, CSS, JavaScript, Node.js, npm, React Hooks, Material-UI, axios, Lodash, IEX Cloud API, Git

## TECHNICAL SKILLS

**Back End:** Java, C, Python, C#, Perl, Ruby, SQL

**Front End:** HTML, CSS, JavaScript, React, AngularJS, jQuery, Flask

**Engineering:** Wireframing, Domain Modeling, UML, RDBMS, VCS, Functional Testing, AWS (EC2, S3)

**Other:** Optics, CAD (SolidWorks, Rhino), Basic Machining, Soldering, Woodworking