

# BILL MERICKEL | Software Engineer

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## EDUCATION

### GEORGIA INSTITUTE OF TECHNOLOGY, College of Computing

Atlanta, Georgia

*Candidate for Bachelor of Science in Computer Science (Intelligence and Systems Architecture)*

May 2024

GPA: 3.97/4.00

- **Distinctions:** Faculty Honors, Dean's List
- **Course Highlights:** Operating System Design, Machine Learning, Algorithm Design and Analysis, Processor Design
- **Semester Abroad:** Studied startup ideation, customer discovery, and business value propositions in Metz, France

## EXPERIENCE

### AT&T INC.

Atlanta, Georgia

*Software Engineering Intern*

June 2023 – August 2023

- Developed 8 API endpoints for ORCA backend infrastructure that connect with SQL server and return appropriate objects
- Enhanced ORCA regional backend codebase by implementing unit tests for a 14% increase in total test coverage
- Received honorary placement in hackathon with AI-focused customer service training app and presented to CTO and Senior VPs

### NCR CORPORATION

Atlanta, Georgia

*Software Engineering Intern*

May 2022 – August 2022

- Crafted 34 Python scripts to automate the process of removing terminated employees as users from the enterprise tools set
- Boosted user removal processing time by 97.25% by eliminating 48 hours of manual labor through pipeline automation
- Nominated for the NCR Software & Technology R&D Excellence Award due to project's processing efficiency

### BUSINESS PARTNER SOLUTIONS INC.

Riverside, California

*Software Engineering/Sales and Marketing Intern*

June 2021 – August 2021

- Issued a \$600+ per year savings plan with Kubernetes and NeuVector container security platform adaptation
- Authored a 15-page documentation detailing security benefits of application containers compared to virtual machines
- Merged 20 containerization and CI/CD technical documents to illustrate an improved software development life cycle

## PROJECTS

### TILEVANIA | 2D Platformer Game

- Designed 10 levels with Unity and C# that include multiple collectibles and hazards, like a retro 2D side-scrolling experience
- Animated 6 various gameplay elements, such as player running and idle stance, hovering coins, and enemy movement
- Incorporated state management for the preservation of player data, such as lives and score, if the player is defeated

### SPOTIFY UNWRAPPED | React Web App

- Built personalized data dashboard using Spotify API with 4 profile-specific features, such as top artists and playlists
- Added feature allowing users to sort tracks in their public playlists by 3 different measures: danceability, tempo, and energy
- Utilized the Spotify OAuth framework to securely enable user login and protection of user data through appropriate permissions

### IMMEDIATE ALERT MESSAGING | Flutter Mobile App

- Developed 2 primary screens for sending messages and images to all organization members and to individual or group chats
- Established 3 Firebase app services; integrated 18 package dependencies for user authentication, message database, cloud storage
- Implemented direct push notifications containing chat name, sender, and message content upon receiving messages offline

### XV6 OPERATING SYSTEM ENHANCEMENTS | Kernel Feature Development in C

- Achieved 4 kernel feature enhancements, including virtual memory performance improvements and a stack backtrace method
- Refined the kernel thread process scheduler by adding 4 different algorithms, including FIFO and Priority Round Robin
- Augmented security of user data by implementing user authentication with a modified hash salt and aes256-encryption

## AFFILIATIONS

### ALPHA KAPPA PSI PROFESSIONAL CO-ED BUSINESS FRATERNITY

Atlanta, Georgia

*Vice President of Finance*

May 2022 – April 2023

- Managed \$60K worth of financial assets, a \$56K annual operating budget, and a \$15K equity portfolio

## SKILLS & INTERESTS

**Languages:** Python, Java, C, JavaScript, Dart, C#, SQL, Apache Groovy

**Tools:** Flutter, Firebase, Unity, React, Node.js, Express, Git, Render, Gatsby, APIs, Pandas, NumPy, Matplotlib, SciPy, JavaFX

**Hobbies:** Scuba, Cinema, Skiing, Hiking, Cooking, Legos