# Chang Min Bark

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## EDUCATION

### **Bucknell University**

Lewisburg, PA

B.S. in Computer Science and Engineering w/ Business Management, Math Minor

Expected: 2026

**Relevant Coursework** Calculus 2,3; Data Structures & Algorithms; Software Engineering & Design; Physics 1,2; Statistics & Engineering; Linear Algebra; Discrete Structures; Intro to Android Development (CodePath)

## TECHNICAL SKILLS

Languages: Java, Python, JavaScript/TypeScript, Kotlin, Go, R, XML, HTML/CSS, C++ (WIP)

Frameworks: React, Node.js, Express.js, MUI, Chakra-UI, Formik, Spring Boot, JWT, Scrum/Agile, MVC, WebSocket

Developer Tools: Git, GitHub, Postman, MongoDB, VS Code, Visual Studio, PyCharm, IntelliJ, Jupyter Lab,

PostgreSQL, Redis, Android Studio, Tableau, Anaconda (WIP)

Libraries: pandas, NumPy, Matplotlib, LangChain, PyTorch, Puppeteer, Cron, scikit-learn (WIP), TensorFlow (WIP)

#### EXPERIENCE

# Open Source Developer

May 2024 - Present

Google Summer of Code/MIT App Inventor

USA

- Updated the multi-select plugin for Google's Blockly using the new IDraggable interface, making it easier to maintain for Blockly developers and removing the need to monkey patch
- Cross-tested 6+ plugins with new multi-select plugin and applied fixes when necessary

## **Backend Engineer Intern**

May 2024 – Present

Hangry Indonesia

Remote/Jakarta

• Improved notification system's efficiency by 70% by rewriting the process in Golang, implementing concurrent processing, and optimizing existing workflows to enhance overall stability and reliability

### Machine Learning (Neural Network) Researcher

Sept. 2023 - May 2024

Bucknell University Advanced Analytics Lab (NSF-backed)

Lewisburg, PA

- Developed a Convolutional Neural Network (CNN) on Jupyter Lab using PyTorch that is capable of rudimentary image processing (9x9 pixels)
- Implemented Adam Optimization Algorithm in Excel to replicate CNN training and analyze model progression

#### Fullstack Developer

Jan. 2023 – May 2024

TEDxBucknellUniversity

Lewisburg, PA

• Developed a fully responsive website for TEDxBucknell events attended by 1,000+ people, resulting in annual sales of more than \$5,000 and a 20% increase in event engagement over the past year.

## PROJECTS

Real-Time Chat App | React, Chakra-UI, Express, PostgreSQL, Redis, Socket.IO

May 2024 – Present

 $\bullet$  Constructed a chat app that allows users to communicate in real-time

Destinex | MongoDB, Express, React, Node, Material-UI, Scrum/Agile, JWT

Aug. 2023 – Dec. 2023

- Led a cross-functional team of 4 as Scrum Master while overseeing **500+** commits and **50+** merge requests, resulting in timely project completion and delivery
- Designed and implemented middleware, models, MVC architecture, and API endpoints, resulting in a 30% improvement in data processing speed and a 25% reduction in server response time

Company Sentiment AI | Node, Express, Puppeteer, Cron, ML Models, Python

July 2023 – Present

- Developed an automated web-scraper using cron and puppeteer that scrapes over 100+ headlines from a company's Google News page
- Utilized and tested AI/classification models like SVC, KNearestNeighbors, DecisionTree, RandomForest, NLP, and Deep Learning Neural Network to calculate sentiment

#### Honors