

Chang Min Bark

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github.com/changminbark | linkedin.com/in/chang-min-bark-0091b7b9/ | changminbark.github.io | Lewisburg, PA

Education

Bucknell University, College of Engineering (Lewisburg, PA)

Expected Graduation May 2026

Bachelor of Science in Computer Engineering & Mathematics Minor | Engineering GPA: 3.95 / 4.0 | Dean's List all semesters

Bucknell University, Freeman College of Management (Lewisburg, PA)

Bachelor of Management for Engineers | Cumulative GPA: 3.98 / 4.0 | Dean's List all semesters

- **Relevant Engineering Coursework:** Data Structures & Algorithms, Software Engineering & Design, Operating Systems, Computer Systems, Algorithms Design & Analysis, Programming Language Design, Linear Algebra, Discrete Structures, Statistics, Calculus (2,3), Physics (1,2)

Skills

Languages: Python, Golang, JavaScript/TypeScript, Java, C, Rust, RISC-V Assembly, SQL, Kotlin, R, HTML/CSS, C++ (WIP)

Frameworks: Pandas, NumPy, React, NodeJS, Express.js, Spring Framework, Angular, Scrum / Agile, MVC, NoSQL, Gorm, Viper, DevOps, CI/CD, Embedded Systems, Multi-threading

Tools/Systems: Git, Docker, Postman, MongoDB, JupyterLab, MySQL, PostgreSQL, Redis, Kubernetes, UNIX/Linux, Unit Testing, Database Management, Distributed Control Systems, Data Processing, REST APIs, Communication Protocols (TCP/IP), RAG

Other: Code Review, Statistical Modeling, Machine Learning Models, Communication Skills, Leadership, Artificial Intelligence, Cloud Infrastructure, CI/CD Pipelines, Cross-Functional Teams, Automation, Deployment, Project Management, AI Infrastructure

Experience

Production Engineering Intern

May 2025 - Present

Meta, Menlo Park/Fremont CA

- **Improved MySQL observability** by capturing 400+ new metrics and structuring logs, leading to **enhanced operational efficiency** and **customer insights** into MySQL database services.
- **Implemented a unified metric collection framework** within DbAgent, which defined and collected various MySQL metrics, **improving consistency** and **reducing operational complexity** as well as deprecation of DbDoctor.
- **Developed a Thrift API and CLI subcommand** to provide InnoDB ClusterSet status and topology information, **streamlining observability efforts** and **enabling faster troubleshooting workflows**.
- **Enhanced MySQL monitoring and alerting systems** based on newly defined metrics and structured logs, resulting in **earlier problem detection** and **more robust database infrastructure management**.

Backend Engineer Intern

May 2024 - August 2024

Hangry Indonesia, Remote / Jakarta (Startup)

- **Sped up** notification system **response time** by **97% (30ms - 1 ms)** by rewriting the process in **Golang** and implementing **concurrent processing** and **optimizing workflows**, enhancing overall stability of push (FCM), SMS, email notification system
- **Reduced** cloud hosting **costs** by **70%** by creating a **scalable and persistent message queue** using **Redis streams**, replacing RabbitMQ, and connecting to remote PostgreSQL database on AWS (real-time, low latency)
- **Decreased** the finance's **checking time** by **75% (4 days - 1 day)** by **automating** supply orders verification using ChatGPT4o

Open-Source Developer - Frontend and Application Development

May 2024 - August 2024

Google Summer of Code / MIT App Inventor, Remote / US

- **Improved maintainability** of codebase and **eliminated need for monkey patches** by integrating the new IDraggable interface into Blockly's multi-select plugin, allowing Blockly developers to use plugins in the latest Blockly version
- **Designed integration tests for bugs** and **resolved conflicts** for the updated multi-select plugin with 6+ Google Blockly plugins, ensuring seamless operation and compatibility with existing plugins in source code

Machine Learning / Deep Learning Researcher

September 2023 - May 2024

Bucknell University Advanced Analytics Lab, Lewisburg PA (NSF-backed)

- Developed a **Convolutional Neural Network (CNN)** on **Jupyter Lab** using **PyTorch** that is capable of **image processing**

Projects

*Other relevant personal projects available on [GitHub](#)/portfolio website

Destinex (Startup) | Full-stack

August 2023 - December 2023

MongoDB, Express, React, Node, Java Spring Boot, Material-UI, Scrum / Agile, JWT

Extracurriculars - Google Developer Group Technical Lead, Badminton Club President, Fremont Scholarship Recipient, Member of Alpha Lambda Delta, Tri-Alpha (First Gen Honor Society), Korean Cultural Association, Global Student Council