Rohan Bajpai

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EDUCATION

University of Maryland — College Park, MD
Bachelor of Science in Computer Science, Minor in Technology Entrepreneurship — *August 2021 – December 2025*

- **GPA**: 3.83
- **Honors**: CS Departmental Honors, Presidential Scholarship Recipient, National Merit Finalist, Dean's List
- **Relevant Coursework**: Algorithms, Organization of Programming Languages, Object-Oriented Programming, Discrete Math, Applications of Linear Algebra, Applied Probability & Statistics, Introduction to Data Science
- **Clubs and Organizations**: Software Engineer at Hack4Impact, Webmaster at Phi Chi Theta

TECHNICAL SKILLS

Languages: Kotlin, Java, Python, C/C++, HTML, JavaScript, SASS, CSS, MongoDB
Frameworks and Libraries: React, Node.js, Flask, Spring Boot, Django, Elastic, Gym, PySpark, Pandas
Developer Tools: Git, Docker, GitLab, GitHub, AWS (Certified Developer), MongoDB

EXPERIENCE

Machine Learning Engineer Intern — September 2023 – Present
Capital One — *College Park, MD*

- Deploying model for predicting mappings of multiple accounts to individual customers across various Capital One products in real-time with sub-second latency and guaranteed **99.9%** uptime
- Leveraging **Kafka** for real-time data streaming, **Spark** for distributed data preprocessing, and **DynamoDB** for low-latency data storage
- Tuned **DynamoDB** keys to minimize system latency and optimize overall system performance

Software Development Engineer Intern — May 2023 – August 2023
Amazon Web Services — *Arlington, VA*

- Eliminated a **10+ day** manual process by developing UI and API based self-service **MySQL** database credential rotation systems
- Designed and integrated SSO authentication for new service to reduce beta testing onboarding time by **90%**
- Finished intern project, stretch goal, an additional project, and machine learning training in 12-week internship
- Expanded functionality of critical **Kotlin**-based REST API enabling on-demand scaling for AWS Services like EC2

Software Engineering Co-op — June 2022 – May 2023
Leidos — *Reston, VA*

- Developed full-stack web app and API for predictive analytics visualization with **Spring Boot, PostgreSQL Thymeleaf, HTML, Bootstrap** and **CSS** on a team of seven
- Presented new features, system designs, and updates to external customers in monthly progress meetings
- Proposed and engineered single-sign on with secured access between application and **Elasticsearch/Kibana** to enhance user experience based on customer feedback
- Applied innovative internal AI/ML research to define requirements and design an RL-based automated firewall hardening product using **Python, Gym**, and **stable-baselines-3**
- Setup automated **CI/CD** pipeline within **GitLab** to lint then generate PDFs from markdown documentation

PROJECTS

Melp | *Python, Flask, React Native, Node.js, MongoDB* — Spring 2022 – December 2022

- Developed a MERN stack mobile app to help roommates live better together featuring bill-splitting, location-sharing, messaging, and chore tracking
- Developed **Flask**-based microservice to extract reciept data using **Tesseract** for OCR, **OpenCV** for image preprocessing to improve OCR results and a **GPT-3** fine-tuned model for OCR data normalization

Marshal Science Fair Evaluator | *HTML, CSS, JavaScript, Django* — May 2021

- Built science fair grading app from the ground up using **HTML, CSS, JavaScript, and Django**
- Implemented personalized schedules for judges, authentication and authorization, support for different rubrics (science vs engineering projects), multi-judge evaluation, and a leaderboard based on average scoring