

Vrishank Bangari

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EDUCATION

Virginia Tech - Virginia Polytechnic Institute and State University *Expected Graduation: May 2026*
B.S. in Computer Science *Overall GPA: 3.78*

EXPERIENCE & RESEARCH

Capital One Jun 2024 - Aug 2024
Software Engineer Intern *McLean, VA*

- Designed and implemented the UI for a metadata management tool using Vue.js, significantly enhancing user experience.
- Developed a dynamic, JSON-based configuration system to streamline the creation of forms and data layouts, enabling extensibility and reducing code duplication by 400%.
- Spearheaded the migration of a monolithic application to a micro-frontend architecture, utilizing configuration system to integrate additional data management capabilities.

Virginia Tech Aug 2024 - Present
Teaching Assistant *Blacksburg, VA*

- Hold office hours and grade assignments for CS2506, Intro to Computer Organization II

Hume Center for National Security and Technology Jan 2023 - May 2024
Undergraduate Research Assistant *Blacksburg, VA*

- Developed an OSINT collection engine capable of gathering emails, phone numbers, and text messages, resulting in a large increase in data acquisition efficiency.
- Deployed and optimized a physical server to handle continuous data streams, improving processing efficiency by 36% through the implementation of compression, batch processing, and throttling techniques.
- Analyzed NLP and sentiment on 18,000+ political spam emails, identifying 9% with potential data misuse.

PROJECTS

AI Medical Assistant (Gemini API Developer Competition) | *Flutter, React, Node.js, Gemini API*

- Developed a Gemini chat and voice interface, with HIPAA-compliant appointment scheduling and medical document analysis, integrated with Medplum.
- Created a health dashboard integrated with Google Fit and Epic in React, delivering personalized health insights.

Gentrification Prediction Model (VTHacks 1st Place) | *Python, scikit-learn, Pandas, HTML, CSS*

- Trained a logistic regression model to predict if zip codes are susceptible to gentrification.
- Developed a front-end to showcase predictions and an interactive map with data points using Google Maps API.

3D Rendering Engine | *C++, OpenGL*

- Building a 3D engine capable of rendering objects using OpenGL and C++.
- Minimized overall computational overhead needed with Frustum Culling and Occlusion Culling.

eBay Machine Learning Competition | *Python, scikit-learn*

- Built a NER model using BERT to classify German eBay product listings with 86.7% accuracy.
- Trained model on 10 million German listings, with spacy tokenizer for custom tokens.

TECHNICAL STRENGTHS & EXTRACURRICULARS

Computer Languages Python, Java, C, C++, JavaScript
Frameworks React, Flask, Vue.JS
Organizations ColorStack, Innovate@VT