Vishrut Tiwari

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EDUCATION

Bard College   **Annandale-On-Hudson, NY**
Candidate for Bachelor of Arts in Computer Science   **August 2018 - May 2022**
Honors and Awards: Dean's List and Distinguished Scientist Award
GPA: 3.87

Relevant Coursework Data Structures, Design of Programming Languages, Computer Systems, Advanced Computer Vision, Scientific Computing, Econometrics, Physics I - II, Calculus I - IV, Real Analysis, Abstract Algebra, and Partial Differential Equations

TECHNICAL SKILLS

Programming Languages:
Proficient: Java
Worked with: Javascript, CSS, HTML, C, Kotlin, and Scheme
Software and Frameworks: AWS, JSON, MongoDB, Node.js, React.js, Express.js, SASS, git, and Linux

EXPERIENCE

Bard College Nano and Micro Labs   **Annandale-On-Hudson, NY**
Undergraduate Researcher   **Sept. 2018 - Present**
- Created 2D to 3D computer vision software written in Java
- Worked on and improved structure from motion software in Python
- Implemented least squares algorithm to compare two point clouds
- Coded and created microstructures using two-photon polymerization
- Operated fluorescent and optical microscopes, a scanning electron microscope, and an atomic force microscope

Innovation Club   **Annandale-On-Hudson, NY**
President and Founder   **Oct. 2018 - Present**
- Brainstormed technical projects to help innovate campus life
- Lead groups through planning phases of projects
- Managed group expectations and progress
- Created a food funnel machine using Arduino and a robotic arm to sort snacks
- Planned a mental wellness app that helps combat chronic depression

Bard College Investment Club   **Annandale-On-Hudson, NY**
Treasurer   **November 2018 - Present**
- Managed and allocated club funds for various projects and investments
- Analyzed stocks over a short term period
- Won profit margin competition for analyzing stocks

PROJECTS

Koterpreter   **Annadale-On-Hudson, NY**
Inventor   **November 2020 - December. 2020**
- Created a Scheme interpreter using Kotlin
- Created an AST, environment, and parser and utilized hashMaps, stacks, and lists
- Implemented using Peter Norvig's approach to designing interpreters

JEV   **Annandale-On-Hudson, NY**
Inventor   **March 2020 - May 2020**
- Created my own text editor that operates in the terminal
- Made with C and includes syntax highlighting, searching, and scrolling
- Extended text editor to work on Windows and Macs

Beer Pong in Augmented Reality   **Annandale-On-Hudson, NY**
Inventor   **April 2019 - May 2019**
- Created 3D AR game using techniques learned in 317: Advanced Computer Vision
- Implemented real-time ball movements using linear algebra and physics
- Added compatibility with web browsers and cameras using Javascript and Three.js